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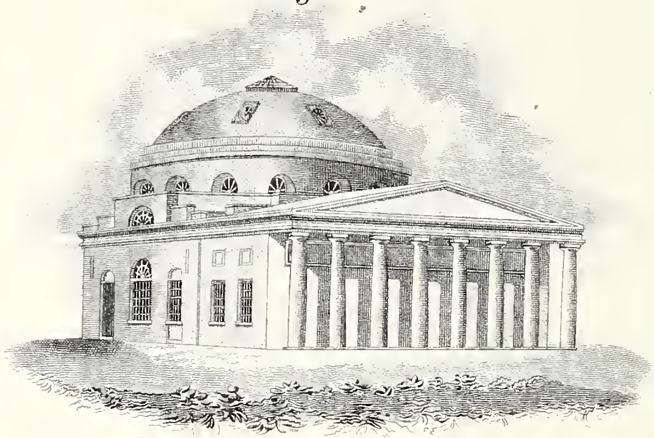

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EDITORIAL

NEBRASKA STATE HOSPITALS MUST BE IMPROVED

Last month in these pages we called attention to the importance of mental hygiene in individual and public health. This month it is our desire to follow up this theme with particular reference to the needs for improvement in our state mental institutions. There are certain facts which we as physicians must recognize and the governmental agencies must appreciate if any improvement is to be brought about. 1. One person in 200 needs mental hospitalization. 2. Fire traps, and irreparable construction, and overcrowding are almost the rule now. 3. Mental illness can largely be prevented. 4. Well trained personnel is economical. These facts have been established over a number of years of study, they are not necessarily limited to Nebraska. Nebraska, however, has certain well defined needs in this direction. To begin with hospital beds are available at the rate of one person in 300. It is a well known fact that 1,500 patients in these hospitals are housed in quarters which may be termed unlivable. There is not a single mental hygiene clinic in this state, a clinic to which people with mental or emotional difficulties may turn for advice. It is also a fact that well trained personnel, because of inadequate salaries, leave the state when positions with better salaries present themselves.

The minimum needs for immediate improvement consist of construction of a 2,000-bed hospital, with additional construction of 1,500 beds in the near future. Nebraska needs and can afford a mental hygiene clinic for each of these hospitals. The cost of such a clinic is said to be approximately $35,000 per year, a sum which is insignificant when measured in return premiums in mental health. To avoid loss of competent personnel it would be well to adopt the Veteran Administration rate of pay so that the patients may receive the benefit of adequate training by physicians, nurses and others whose services are so important. These recommendations are based upon a study by the Association for Advancement of Mental Hygiene in Nebraska. They do not represent the standards for more than average care of the mentally ill.

Those who are interested in psychiatric standards as recommended by the American Psychiatric Association may compare the figures now in use in Nebraska. According to the A.P.A. standard the cost of care per patient is $2.00 per day; Nebraska's cost is $1.00 per day. A.P.A. standards call for one psychiatrist for each 110 patients. In Nebraska hospitals there are 17 psychiatrists. A.P.A. standards call for one qualified nurse to 40 patients. Nebraska state hospitals have a total of 12 such nurses. A.P.A. calls for one attendant to six patients; we have a total of 450 attendants. A.P.A. standards call for one physiotherapist to 200 patients; our state institutions have a total of three physiotherapists. A.P.A. standards call for one occupational therapist to 100 patients; there are six occupational therapists in the whole state of Nebraska. There are three recreation therapists in Nebraska compared to one recreation therapist per 100 patients.

To fulfill the American Psychiatric Association standards, Nebraska needs to double its per patient cost; to adopt veteran administration rates of pay and to secure forty psychiatrists. Nebraska needs 98 additional nurses, 300 additional attendants, 19 additional physiotherapists, 38 occupational therapists, and 41 recreational therapists.

We are not naive enough to even imagine

that such a wide improvement may be brought about in this state over night, or even over a period of months. We do believe, however, that the people in Nebraska are entitled to far better facilities for mental illness than exist today. We believe further that improvement both in housing and in personnel is a possible achievement in the near future if the legislature and our new governor become acquainted with these acute needs and appropriate funds sufficient to put into effect some or many of these improvements. A construction program is a MUST at this time. Our goal as Nebraskans should be to approach the A.P.A. standards with a well defined plan.

One of the first prerequisites to improvement in mental health is a change in the admission laws. Patients should be made to feel that mental illness is no more a degradation than physical illness. A patient does not choose to become ill mentally any more than he does physically. He should be afforded the opportunity of **voluntary admission** to a hospital before the family decides to commit him. Antiquated methods for admission under the present law have no place in a modern society.

HELP THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

We cannot dismiss the recent epidemic of poliomyelitis without comment. From June until last December 10, 632 cases were reported in this state. While this is not an awesome number, nevertheless it is twice that reported for any previous year from the time the State Health Department began keeping records in 1920. Nor do we take into account the fact that out of these 632 cases there will be many left with residual paralysis. We do not have the total number of deaths from the disease for the past year but a ten per cent mortality we believe would be a conservative estimate. The purpose of these remarks is to call attention to some of the facilities which were made available upon short notice and which helped materially in the care for these unfortunate patients. As is well known to every physician who has had experience with these conditions in former years, the facilities for the care of polio patients had been extremely meager. What would have been the situation had not some of our medical and auxiliary leadership gone into action, is difficult to state.

The fact is that in a very short time following the appearance of cases throughout the state a few centers were whipped into shape to accommodate patients suffering from poliomyelitis. The Orthopedic Hospital in Lincoln, St. Joseph and Douglas County Hospitals in Omaha, and St. Joseph's Hospital in Alliance, these were all institutions which readily accommodated sufferers from poliomyelitis, and immediately afforded modern, up-to-date treatment for the disease. More than 325 cases were hospitalized in Omaha alone. It is true that some preparation had been made in the field of care following a mild, increased incidence of the disease in 1945. Some of the technical and nursing staff had been trained, and indeed had been engaged in polio work in this state in 1945. However, with the rapid influx of cases into these centers this year, many more nurses and a host of helpers suddenly became an acute necessity. The way in which these aids were made available is in itself an epic which will remain a credit to the National Foundation for Infantile Paralysis, Inc., the Red Cross, the Nurses' Association, and the medical profession. It required the coordinated effort of all these agencies to afford every patient accommodations of modern care. So far as we know, no patient was turned away. This in spite of the fact that practically all hospitals, with the exception of those previously mentioned, could not admit these patients on grounds of contagion. It was a comfort to the doctor and the family of these victims to feel that the struggle for admission would be alleviated and that the patient could be sent in on short notice to benefit from early diagnosis and timely care.

We make these remarks at this time to emphasize the fact that this month the National Foundation for Infantile Paralysis is conducting its annual March of Dimes Campaign. There were occasions in the past when some of us looked rather lukewarmly upon the purpose of this Foundation for the reason that funds were being collected and used in a way in which most of us had had little immediate interest. The recent epidemic has taxed the local Chapters to a point that the funds in many counties were entirely depleted early in the summer, and practically every Chapter with a significant number of cases was forced to call upon the headquarters' treasury to supplement financial needs of these patients.

(Continued on page 4)

PRESIDENT EARLE G. JOHNSON
Grand Island

Arrangements between the Nebraska State Medical Association and the Veterans Administration regarding the care of veterans are now completed. These arrangements, I believe, are fair and just in that they fulfill the condition of free choice of physician by the veteran. The physician in turn has the right and the obligation to the veteran as a private patient under his care as though the patient himself were to pay for the services.

The fees agreed upon compare favorably with the prevailing fees charged to private patients of average income. It is obvious that the system will be successful only to the extent to which the private physician and the Veterans Administration cooperate. And since both parties have a common aim—to afford the veteran the best medical care available, there should be small reason for difficulties. There is paper work, of course, though we believe to a minimum degree. After all, as individual taxpayers, we want the Veterans Administration to be able to keep its books in order. We are also interested as physicians in whatever statistical information may be made available in the future as a result of these records.

EARLE G. JOHNSON, M.D.

Through Mr. Clinton Belknap, Nebraska Representative for the National Foundation of Infantile Paralysis, the Foundation responded promptly and generously. Large sums of money were sent in periodically as the request was made, without delay, in order to continue the systematic care without interruption. The Foundation was helpful in supplying not only respirators, hot pack machines, and cash to purchase many supplies, but was also instrumental in enlisting technical help so urgently needed during the height of the epidemic. In actual cash the Foundation supplied a total for Nebraska of $111,070.00. This was the figure as of December 10. We have no doubt that the Foundation will supply the needs as the request for additional funds are made.

As physicians we owe a debt of gratitude to the National Foundation for Infantile Paralysis. Without their direct help conditions would have been exceedingly difficult.

INTENSIVE THREE-DAY SEMINAR ON POLIOMYELITIS

The National Foundation for Infantile Paralysis has made available facilities for an intensive three-day course of instruction for a selected number of physicians in Nebraska. Arrangements have been perfected between the University of Nebraska College of Medicine and Creighton University College of Medicine whereby a symposium on Poliomyelitis will be given on January 9, 10 and 11, 1947. The facilities of the Douglas County Hospital, St. Joseph's Hospital, the University Hospital and the Hattie B. Munroe Convalescent Home will be utilized. Drs. George Robertson, Associate Professor of Pediatrics, University of Nebraska College of Medicine, and J. Harry Murphy, Professor of Pediatrics, Creighton University School of Medicine, are largely responsible for the development of the program. Other participants include Dr. Herman Jahr, Associate Professor of Pediatrics, Dr. A. Ross McIntyre, Professor of Physiology and Pharmacology, and Dr. Robert S. Wigton, Instructor of Neurology and Psychiatry of the University of Nebraska College of Medicine; Dr. B. Carl Russum, Professor and Head of the Department of Pathology and Bacteriology, and Dr. Frank Barta, Assistant in Neuro-Psychiatry, Creighton University School of Medicine. The course will cover all phases of poliomyelitis including early diagnosis, differential diagnosis, physiotherapy, occupational therapy and the various aspects of convalescent care.

One physician will be selected by each of the Councilors of the Nebraska State Medical Association. The National Foundation for Infantile Paralysis will pay all expenses of the doctors attending the conferences as well as defray the expenditure involved in the presentation of the symposium. It is anticipated that physicians atending the course will report to their local medical groups concerning the newer developments and procedures used in the diagnosis and treatment of poliomyelitis.

ADVANCES IN VENEREAL DISEASE CONTROL

The author discusses international cooperation in venereal disease control. The exchange of information regarding source and spread of infections has already been established in the Western Hemisphere, and during the war the United States Public Health Service developed a system for forwarding to appropriate health agencies throughout the world the names and addresses of persons reported as contacts of infected patients under health jurisdictions of the United States.

The exchange of medical information among health authorities of different countries is another useful means of international cooperation in venereal disease control. The United States Public Health Service has made freely available to physicians of other nations information regarding new treatment methods used in the United States.

The author describes the development of short schedules of therapy for both syphilis and gonorrhea and the organization of special hospitals known as rapid treatment centers.

Education of the public as to the symptoms and spread of venereal disease infection is the most successful case-finding method. The value of public education is discussed in connection with clinic admissions and mass blood testing surveys in several cities. Results of blood testing of Selective Service registrants are discussed.

—From V-D Information, Dec., 1946

Medical Problems in the Surgical Patient*

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Before considering my phase of the symposium, I should like to mention a point brought up by several of the speakers who preceded me, regarding the matter of alcohol. In Europe, and particularly in Russia, where alcohol has been used for intravenous anesthesia, it has been found that acute pancreatitis occasionally might result. With the widespread use and abuse of alcohol in this country in recent years, more cases of acute pancreatitis are being reported from time to time. We know that mumps, obesity, gallstones and acute alcoholism can give rise to an attack of acute pancreatitis. It is very probable that the alcohol administered in the doses recommended this afternoon, and properly diluted, will be harmless. We certainly know that it is helpful in the treatment of elderly hypertensive patients who have cardiovascular disturbances.

By way of introduction to my portion of the symposium, I should like to make the following observation: it is not improbable that history eventually will characterize the period through which we have just passed as the "Barbaric Age," for at no previous recorded time has there been such a display of man's inhumanity to man or such wholesale destruction of lives and property within such a brief time. Even the ultimate product of present-day research in nuclear physics, the atomic bomb, has been prostituted to war's end. We realize that the bomb's potentiality for destruction almost defies our imagination, and that if its use is not properly controlled, it will prove to be the Frankenstein monster that in the end will destroy its creators.

This is not a pretty picture but, on the other hand, medical science in both military and civil practice has made signal progress, resulting in remarkable reduction in mortality and morbidity rates. The achievements of the second World War are of recent memory. In civil practice perhaps one of the most inconspicuous and less-heralded phases of progress has been made in the field of preoperative preparation and postoperative care, the more important aspects of which have already been brought out by the speakers who have preceded me. Up to a few decades ago it was said that the operation was made safe for the surgeon, but now it is being made safe for the patient. In recent years there have appeared many contributions dealing with the preoperative and postoperative care of the so-called bad-risk patient.

PROBLEMS PRESENTED BY PARTICULAR CONDITIONS

Always there has been with us the patient who has cardiovascular-renal complications. Also, the diabetic, asthmatic and obese patient. Even in this field there has been marked progress in methods of preoperative preparation of such patients. With respect to the cardiac patient the three most serious conditions, in my judgment, are occlusive coronary disease, decompensated hypertensive heart disease and syphilitic aortitis. It is unnecessary to remind this audience that the patient who has angina pectoris, and especially the one who has previously experienced coronary occlusion with myocardial infarction, is one of the more common grave risks. Operation under such circumstances never should be entertained unless the surgeon is faced with a condition in which the risk to life is immediate, such as is the case in acute intestinal obstruction, or in the presence of an operable carcinoma. In the preoperative preparation of the diabetic, asthmatic and nephritic patient, which often requires specialized knowledge, I always welcome the assistance of my colleagues who specialize in these various fields. Neither time nor space permits detailed discussion of the procedure of treatment in such cases. The same is true of patients who have pulmonary complications. In such cases even the emergency intervention of the endoscopist is sometimes necessary, as you well know, in order to save life, especially in the presence of immediate postoperative pulmonary complications.

THE AGED PATIENT

We were all well aware of the fact that the world has been filling up with old people. Therefore, we have another so-called risk patient who is more and more coming to the front; namely, the elderly man or woman.

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*Part of symposium of paper given before the Seventy-eighth Annual Convention of the Nebraska State Medical Association, Lincoln, Nebraska, May 7, 1946.

Prior to the war just ended the death rate in proportion to births was getting to be a matter of national concern, but with our participation in the last World War a large number of the younger generation married, babies fortunately came along in abundance, and for the present we are not worrying so much on that account. The problems of operation in the aged result from a number of factors, chief among which are: (1) avitaminosis, which often is the result of enforced or selective habits of diet, coupled with poor absorption; (2) cardiovascular-renal disease; and (3) chronic infections of the upper part of the respiratory tract, among which I may mention chronic bronchitis and bronchiectasis. The last-mentioned conditions may be classified under (a) chronic emphysematous, anoxemic, or (b) accumulative and productive varieties. One must not forget to mention the risk presented by the patient who has an acute cold. I recall with profit an observation made by the late Dr. George W. Crile. He said it was the better part of wisdom that operation on a patient who has an acute cold be deferred. In fact, he said, he would postpone operation if he or the patient thought an acute cold was in the offing. The risk is not nearly so great in a patient who has had the cold for some time. By "colds," I have reference to acute infections of the upper part of the respiratory tract.

THE ASTHMATIC PATIENT

A word about the asthmatic patient. He usually constitutes a considerable risk, particularly if an abdominal operation is necessary. There are two types of asthma, the allergic and the infective. In the former the allergic patient may be put into an air-conditioned, allergen-free room. Such a procedure usually is essential to improve the condition of the patient so that he will be able to withstand operation. Within a week or ten days, and sometimes in less time, he is free of his asthma. Among patients who have bronchial asthma of an infectious nature, the physician must be discreet in the use of opiates, otherwise the secretions will be locked up, so to speak, and the condition will become aggravated. Coughing adds to the irritation, but the physician should not try too much to control the cough with opiates. Inhalations of steam and such new methods as the use of penicillin aerosol may prove to be distinctly helpful.

THE OBESE PATIENT

I should like to comment on the obese patient. Obesity, especially in the middle-aged woman who "lives to eat," is as difficult of correction and control as morphinism in many cases. In many instances, such patients have to be hospitalized and kept under the strictest surveillance in order to achieve results. Then, to maintain their weight within normal limits after they have departed from surveillance, is even a bigger problem. The correction of obesity is very important in the treatment of diaphragmatic hernia. It has been our repeated experience that reduction in weight to normal ranges among middle-aged women and men who are so afflicted may cause marked amelioration or disappearance of their symptoms. Of course, for patients who have an extensive, irreducible hernia of the aforementioned nature, or whose colon is implicated so that the risk of strangulation is always present, an operation may be necessary, but even then preoperative reduction of weight is an essential prerequisite, for obvious surgical technical reasons. The advice to your unco-operative fat patient should be: "Keep thin, for the gates of heaven are narrow."

EVIDENCES OF PROGRESS

I should like to digress for a moment just to tell you of an amusing situation which developed about ten or twelve years ago, and which is indicative of the enormous progress made in lifesaving measures, especially with regard to the surgical patient. Several of my acquaintances in charge of undertaking establishments in Rochester were greatly worried because their business was falling off rather rapidly. This was particularly noticeable during the period when there were marked advances made in our knowledge of biochemical processes, and during more recent years as the result of the introduction of sulfonamide compounds and antibiotic agents. This fact, coupled with a discriminating choice of patients for operation, and in addition to the adequate preoperative preparation of such patients who required it, was the chief explanation of the marked reduction in postoperative morbidity and mortality rates. But with the enormous increase in the registration during the war years the evil day was temporarily postponed, at least so far as the undertakers were concerned.

SURGERY OF GASTRO-INTESTINAL AND HEPATOBILIARY SYSTEMS

And now I have come to the field in which I am especially concerned; namely, the gastro-intestinal and hepatobiliary systems. To quote one authority, "probably no major procedure in surgery requires as meticulous and thorough preparation and after care as do operations on the stomach and duodenum." However, I am willing to admit that such an infrequent and involved procedure as transplantation of the ureters, as illustrated today by Dr. Hess, certainly requires much preparation and aftercare.

GENERAL CONSIDERATIONS

In these operations on the upper portions of the digestive and biliary tracts it is necessary to consider the fluid, electrolytic, caloric, protein and vitamin requirements. Let us briefly enumerate some of the clinical entities: pyloric obstruction, benign or malignant; carcinoma of the stomach, with or without obstruction; gastrojejunal ulcer; gastrojejunocolic fistula; gallbladder disease complicated by jaundice for one reason or another; postoperative biliary fistula; intestinal obstruction and chronic ulcerative colitis. One of the most vivid impressions gained from my thirty-eight years of active service with the Mayo Clinic is concerned with the former high fatality rate among patients undergoing operation for pyloric obstruction. Moreover, it did not matter whether the obstruction was of a malignant or a benign nature: the fatality rate was about 17 per cent. Hence, I decided that all these patients probably should be operated on by Will or Charlie Mayo or by Starr Judd. After several months, however, we found that the fatality rate was the same. Therefore, it was decided that something other than the surgical procedure itself was the cause of the disturbing number of deaths. When we were at about our wits' end, McCallum published the results of his research on dogs with artificially produced pyloric obstruction and the resulting grave physiologic changes. Other workers, such as Hayden and Orr, also contributed valuable information bearing on our problem, information which it would not have been possible to obtain if it had not been for the marked advances made in biochemistry. It was found that the cause of death was dehydration and toxemia, the latter arising from the loss of certain vital substances in the body fluids, so-called electrolytes. The amazing thing was that lives could be saved by attention to such simple things as values for water, sugar and salt. This reminds me of the old saying that the big things in life are simple.

WATER BALANCE

Of course, we have learned since that time that solution of the problem in question requires something else besides the provision of water, sugar and salt. In addition, it is known that if these simple agents are not wisely employed, they may even do more harm than good. Water, however, cannot do much harm. It is as important a vital requirement of the body as is oxygen. If you reduce a man's water content 10 per cent he will become a very sick man, and he will die if the water content is reduced 20 per cent. We all know that a human being can live for days and days without food, but not very long without water. Nowadays we recommend no preoperative purging and no postoperative starving. For the average adult the daily basal requirement of fluid is about 3,500 c.c. It is expedient that the intake and output of fluid be charted each day. The daily excretion of 1,000 to 1,500 c.c. of urine is essential. We have found that the ingestion or administration of 7,000 c.c. or more of fluid may be necessary for the severely dehydrated patient. The rate of intravenous administration is important. In the administration of 3,500 c.c. or less, the fluid should be administered at the rate of 300 to 500 c.c. per hour. If more than that amount is necessary, administration by continuous drip at the rate of 200 c.c. per hour is recommended until the clinical signs of dehydration have disappeared.

ELECTROLYTE BALANCE

It has been said wisely that one of the most jealously guarded constants of the organism is the total concentration of electrolytes in the blood plasma. The average patient requires 5 to 6 gm. of salt per day, but note that 1,000 c.c. of isotonic solution of sodium chloride contains 9 gm. of salt. In the past, the determination of the chloride content of the plasma was supposed to mirror the loss of chloride of the organism and the amount of salt needed to replace it. Plasma chlorides, however, may remain at a normal value because of depletion of tissue chlorides, especially in the earlier stages. Therefore, in recent years more dependence was placed on the more simply performed test for the excretion of chloride in the urine, to determine the amount of chloride replacement necessary. As a matter of fact, recent investigations have shown that hypochloruria, together with retention of nitrogen and disturbances in the acid-base balance, constitutes the outstanding biochemical feature of patients who have pyloric obstruction. When large amounts of salt are required, a 3 per cent saline solution is preferred by some. The carbon dioxide combining power of the plasma discloses the amount of sodium present in excess of chloridion. At this time I should like to pay tribute to one of Dr. Curtis' colleagues, Dr. Coller, of Ann Arbor, who with his associates has taught us so much with respect to our present knowledge concerning fluid and electrolyte balance. And Dr. Coller was courageous enough to reverse his former attitude regarding the sodium chloride requirements. He recommends that no isotonic or Ringer's solution be administered on the day of the operation or during the first two postoperative days.[1] If a significant loss of fluid occurs during the aforementioned period, it should be replaced with an 0.5 per cent solution of sodium chloride to which 50 gm. per liter of dextrose has been added. We are also cautioned to use great care in administering isotonic solution of sodium chloride or Ringer's solution to patients who have anemia, acidosis, oliguria and hypoproteinemia. The excessive use of salt and water may cause much difficulty in gastro-intestinal surgery because of interference with peristalsis and the functioning of any stoma that may be created at operation.

CARBOHYDRATE BALANCE

Glucose, of course, is supplied to all patients who receive fluids parenterally. The administration of glucose restores the supply of glycogen, promotes the oxidation of fat and prevents ketosis. It also buffers the liver and supplies calories.

PROTEIN BALANCE

It has been only in recent years that the necessity for protein as well as for vitamins has been recognized. Proteins build and repair tissues. A considerable loss of protein accompanies many surgical conditions, such as burns, shock and hemorrhage. The effect of loss of protein (hypoproteinemia) on gastro-intestinal function is generally known. When the value for total protein in the plasma is less than 5.5 gm. per 100 c.c of serum, edema may appear. Death may occur when it is less than 3 gm. per 100 c.c. When depletion of this nature is present, peripheral edema and visceral edema appear. In addition, inhibition of intestinal motility is brought about, and the healing of wounds is seriously delayed. Before the advent of such adjuncts as commercially produced plasma, amino acids for intravenous administration (for example, parenamine), or protein hydrolysates (such as amigen, which can be administered orally), the physician had to rely on the transfusion of blood. The transfusing of blood to a patient is a costly procedure, and an enormous amount of blood is required before any appreciable change in the protein level of the serum can be obtained. Of course, of importance are the amount, mode, and rate of administration of the various alternative preparations I have mentioned, the detailed consideration of which time and space do not permit here. But such procedures usually are of an emergency nature, and the preparations themselves are inadequate substitutes for natural protein foods, if the patient is able to ingest such foods.

The necessity for the use of vitamins A, B, C, D and K in the various disturbances discussed herein is now generally recognized.

THE PROBLEM IN GASTROJEJUNOCOLIC FISTULA

One of the most dramatic conditions requiring adequate preoperative preparation is gastrojejunocolic fistula. Without adequate preparation the fatality rate may be as high as 60 per cent, even in the best of hands. In such cases the dehydration, electrolyte imbalance, calcium deficiency, wasting, and avitaminoses—complications of multiple nature—are striking, and yet if the physician is permitted two to three weeks in which to prepare such patients for operation, the fatality rate can be reduced to a minimum. I am reminded of what the late Dr. William J. Mayo once told me when we were discussing a patient whose condition was difficult of diagnosis and who apparently required surgical exploration and preoperative preparation. He said: "I defer to your considered judgment; after all, you are the architect; I am just the carpenter." The dramatic effect of vitamin K is a matter of common knowledge. I recall that in the old days we used to see these jaundiced patients slowly ooze to death, even though the operation itself by the masterful surgeon was a complete success. All this now has changed. As regards surgery of the biliary tract much progress has been made possible by better knowledge of hepatic physiology and the proper use of that remarkable lifesaving vitamin, K, before and after operation. As Dr. Engle has well said, "we should never see any patient die of surgical shock any more." Neither should jaundice nowadays be a significant factor contributing to surgical risk in operations on the gallbladder and biliary passages.

REFERENCE

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Pre- and Post-Operative Management of the Urological Surgical Patient*

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Improved methods of diagnosis have made possible early recognition of disease and the administration of proper treatment. Advanced surgical technic, anesthesiology, physio-chemistry, and therapeutics have contributed toward safer and earlier cures with the resultant expansion of life from the mere forty-two years in 1900 to sixty-five years in 1944. Medical science has made this a healthier world but on the other hand it has increased the population of the older age group with its diseases which require specialized treatment, and the evolution of the socio-economic problems necessitating their continued useful employment, independence, and self-respect. The preoperative and postoperative care of the urological patient, therefore, begins with the congenital anomalies of the newborn to the involutional changes attending old age. Surgical procedures may differ with the surgeons, but the care of the patient must be based on sound diagnosis and therapy.

GENERAL PREOPERATIVE CARE

The admission of a urological patient calls for a detailed history of his present and the past illness, a review of the systems, and a general physical examination. The routine laboratory examinations must include a complete blood count, blood sugar and blood urea-nitrogen level, sedimentation rate, and serology. Urinalysis is frequently deferred until the patient is cystoscoped when a complete study of the urine collected under aseptic methods can be accomplished. The physician may supplement the above with additional laboratory aids in establishing a diagnosis.

If the patient does not present any contra-indications to cystoscopic and urographic examination, these are generally done on the day of admission or the following morning. At our clinic, cystoscopy is accomplished under local anesthesia and is followed by excretory urography or retrograde pyelography with bilateral renal function tests. Further renal function tests are performed whenever necessary. Thus, within twenty-four hours the data necessary to establish a highly accurate diagnosis are available, permitting early institution of therapy.

Many patients present psychoneurotic symptoms which are directly due to their urological pathology and the suffering incident thereto, while others with grave pathology present minimum nervous reactions. The treatment of neurosis is not the duty of a surgeon, but he is frequently permitted insight into the emotional disturbances masked behind the physical complaints referable to the cardio-respiratory or gastrointestinal systems. All diseases are associated with psychic disturbances which run the gamut from mild personality changes to extreme psychoneurotic tendencies, but certain diseases are more frequently associated with such changes.

The surgeon must be able to detect these neuroses and must properly evaluate them in the pre- and postoperative management of the case. He frequently must manage the various members of the patient's family to obtain the best results for his patient. He must be aware of the possible mental aberration following a mutilating but necessary surgical procedure. Postoperative incisional pain of neurotic origin must be differentiated from the pain of true neuroma. As the patient leaves the hospital, he must be reassured by the surgeon that return to work after the enforced absence is safe and in cases of prolonged convalescence the period of gradual readjustment must be skilfully managed. If the emotional disturbance is obviously overwhelming, early consultation with a psychiatrist is imperative.

GENERAL POSTOPERATIVE CARE

Postoperatively, the unpredictable period of convalescence begins. It may be smooth and uneventful or stormy and sometimes fatal. Frequently underestimated by the busy surgeon is the proper care of the patient by a competent, well-trained nurse. She must understand the patient's inherent qualities, his social and domestic relationships, and the operative procedure required to treat the disease.

It has become the custom at our clinic to discuss with the nurses at bi-monthly conferences, the pharmacology of the newer drugs, the surgical technic, and the pre- and postoperative care. These short meetings have increased the interest of the nurses in the care of their patients. The nurses are thus able to detect untoward postoperative complications and are ever on the alert for drug idiosyncrasies.

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*Read before the Annual Session of the Nebraska State Medical Association, Lincoln, May 8, 1946.

Immediate postoperative sedation consists of adequate opiates (pantopon, gr. 1/6 to 1/3 or morphine, gr. 1/8 to 1/4). The use of ice bags to the site of incision increases the sedative effect, diminishes exudate and hemorrhage, controls the oozing, and retards local tissue metabolism.

As soon as the patient reacts from the anesthesia, his first desire is often "something to drink". Intake of fluids and nutrition by mouth is the most natural route. It may be better to substitute parenteral administration of fluids. This restores water-balance quickly and avoids dehydration and hypochloremia. A daily requirement of fluid intake in a normal adult weighing approximately 150 pounds is 3000 cc. His output during the twenty-four hours by his urinary tract, under normal circumstances, should not fall below a minimum of 1000 cc. Surgeons expect their patients to be in the state of fluid equilibrium. Too frequently, in the febrile patient and the elderly male with self-induced dehydration, this fluid replacement becomes of utmost importance. One must not overlook the necessity of fluid replacement in prolonged operations. Here, blood loss, invisible fluid loss and excessive perspiration, requires the substitution of 1000 to 2000 cc. of fluids. Postoperatively, the loss of fluid due to vomiting, sweating, lack of oral intake, et cetera, calls for the administration of 2000 to 3000 cc. parenterally. Where there has been perceptible evidence of excessive fluid loss, up to 4000 cc. may be safely given.

The adequate intake of electrolytes in the form of sodium chloride is desirable. Optimal daily intake is approximately 8 to 10 grams. This is adequately met in the normal diet, but surgical patients are frequently confronted with lack of electrolytes due to lack of intake. This may be fulfilled by the commonly dispensed physiological saline solution (0.9 grams per 100 cc.) where 1000 cc. meets the normal daily requirement of 9 grams. One must consider the attending electrolyte loss by vomiting, sweating and excretion. The indiscriminate use of saline solution in simple fluid replacement should be avoided because of salt retention in the tissue resulting in harmful edema. This complication may be obviated by the use of 5 per cent glucose in sterile water.

The adequate caloric intake of available carbohydrates must be assured for expanded energy, glycogen formation, proper fatty metabolism and to spare protein metabolism. Glucose is generally used in 5 per cent solution to meet this requirement. If necessary, a higher concentration varying from 10 to 50 per cent has assured us of a reliable source. In order to avoid ketosis, a daily intake of not less than 100 grams of glucose is desirable in the total daily nutrition. Five per cent solution of glucose furnishes 200 calories per 1000 cc., while 10 per cent solution furnishes 400 calories per 1000 cc. Recently, a 5 per cent solution of ethyl alcohol in glucose or normal saline solution has been reported to produce a smoother postoperative sedation and is advisable in the treatment of debilitated patients.

Protein starvation becomes strikingly apparent in the aged, the chronically ill, and the post-surgical patient. This condition may be due to (1) lack of the optimal intake of protein (0.75 to 1.0 gram of nitrogen per kilogram of body weight), (2) impairment of digestion and absorption, and (3) the interference of physiological transformation of dietary protein into tissue and serum protein. In the prevention and treatment of protein deficiency and excessive nitrogen loss, feeding independent of the digestive and absorptive process within the gastro-intestinal tract is possible by the parenteral administration of the essential amino-acids. Easily prepared in combination with saline, glucose, and parenteral vitamins, a simple and basically adequate form of therapy is available. Daily protein requirements for the average adult is based on 1 gram per kilogram of body weight. In disease affecting intake and absorption, the daily allowance must be increased sometimes up to 5 grams. The parenteral administration of proteins (amigen), and the oral intake of protein hydrolysates (lactamin), have promoted tissue repair and have prevented wound disruption. Their administration also improves postoperative asthenia and shortens convalescence. Plasma and its derivatives and blood transfusions must not be overlooked.

Vitamins may also be administered simultaneously with the above forms of parenteral therapy. The recommended daily intake of 10 mgm. of thiamin chloride, 5 mgm. of riboflavin, 20 mgm. of niacin, and 100 mgm. of ascorbic acid may be further supplemented by other valuable vitamins.

Bed-rest, once considered the oldest and best form of treatment, has recently been severely criticized. Some surgeons are allowing patients to get out of bed as soon after operation as they desire. One must not forget that in certain acute infections and orthopedic conditions, rest is essential.

Controversy now exists in the treatment of cardiac disease without bed-rest. Rigid restriction of activity is known to decrease blood flow, favor development of thrombus with the potential hazard of embolism, the hypostatic pneumonia in the elderly patient, alterations in body chemistry, and the production of psychic invalidism. Furthermore, the atrophy and dystrophy of disuse of the skeletal and muscular systems and the formation of decubitus ulcers are outstanding phenomenon of ill-managed bed-rest. When bed-rest must be enforced, passive movement and massage must not be neglected. The nurse, who is instructed to massage the patient, must realize that this is a mild form of exercise, that it will improve the muscular tone, improve lymphatic and venous flow, and similarly improve the nervous system. On the other hand, sedation must not be misused to have a "quiet" patient who goes into a state of inert recumbency.

Frequent postoperative complications are (1) hemorrhage requiring intravenous fluid replacement, plasma and blood transfusions and, at times, re-operation, (2) gaseous distention noticed in the first or second postoperative day and relieved by low soap suds enema, followed by 1:2000 prostigmine. Gaseous distention persisting beyond this and refractory to the above must be treated more intensively, frequently requiring intestinal decompression by Wangensteen suction drainage.

Hiccoughs may be treated by carbon dioxide inhalation, gastric lavage, sedation, and in rare cases, where streptococcic infection is the etiological factor, serum and chemotherapy may be effective. One must not overlook the hiccoughs associated with uremia.

The postoperative care of a patient does not terminate by his dismissal from the hospital but is extended to the recovery of his optimal physical status. The effect of intensive rehabilitation as demonstrated in the Armed Forces has contributed much toward civilian medicine. This highly important period, unfortunately, has been all too often ignored by the busy surgeon who cannot fully comprehend that restoration of physical fitness is not always easy and "natural".

OPERATIONS FOR BLADDER NECK OBSTRUCTIONS

Bladder neck obstructions are seen in both sexes, but the anatomical differences in the male give us more concern. Prostatic hypertrophy of the benign and malignant nature, chronic bladder neck infections and obstructive bar formations are the frequent complications in the male. Although segregating the elderly men to the so-called "prostatic age" is controversial, its possibility should never be overlooked by any physician. This disease, therefore, involves not only the secondary obstructive uropathies involving the bladder, ureters, and the kidneys, but includes a thorough understanding of geriatrics. All of these elderly men have crippled cardio-vascular, gastrointestinal tracts, and psychoneuroses of varying degrees. The most effective application of clinical medicine can, therefore, be accomplished by an understanding of the fundamental physiological mechanism of the aged. The urological surgeon must understand the changes, capacity, and limitations of his patients with uncomplicated prostatic hypertrophy or with the co-existing diseases of this age group, such as heart disease, cancer, arteriosclerosis, kidney disease, tuberculosis, diabetes mellitus, gout, et cetera. Prostatic hypertrophy involves all of the known specialties of clinical medicine and places a tremendous burden upon the independent urologist.

PREOPERATIVE CARE FOR PROSTATECTOMY

The history of bladder neck obstruction, physical examination revealing enlarged prostate gland per rectum and routine laboratory examinations are supplemented by eurythrocytic sedimentation rate, serum acid phosphatase level determination, and kidney function tests. If contraindications are not demonstrable, cystoscopy and excretory urography are done on admission. These examinations, including medical consultations, are generally sufficient to determine the choice of operative technic and the preoperative care necessary to assure maximum safety.

1. Where prostatic hypertrophy is not

marked, symptoms are minimal and are of very recent origin, with laboratory data well within normal limits, very little restriction is placed on the patient's activity. While the urine specimens are being cultured for evidence of infection, urinary antiseptics, such as the sulfonamides, are administered. It is well to comprehend the very small oral intake (2 to 3 grams daily) to maintain a very high output of the sulfonamides in the urine. On the day prior to operation, the patient is re-examined. That night a cleansing soap suds enema and parenteral anti-coagulants (synkamin, 2 to 5 cc. and neohemoplastin, 5 cc.) are administered. Ample sedation (seconal, gr. 1½ or sodium amytal, gr. 3) is given to assure rest and sleep. Blood is frequently typed and kept available for immediate use.

After midnight, nothing is given by mouth except sips of water with oral sedation. Atropine sulphate, gr. 1/150 is given on call to the operating room. Among the very apprehensive and those presenting cardiac embarrassment, sedative doses of oral (seconal, gr. 1½; sodium amytal, gr. 3) or intravenous (evipal, sodium pentothal) barbiturates are indicated. The operation of choice in our clinic is transurethral resection.

2. In the more advanced cases presenting episodes of acute urinary retention, slight azotemia, and very little loss in renal function, an indwelling urethral catheter is inserted. These patients are encouraged to be ambulatory to avoid psychic and physiological complications frequently attending sudden restriction of activity in the older age group. Diet is normal, fluid intake depends upon the state of dehydration and azotemia. Oral intake is frequently supplemented by venoclysis of 1000 to 2000 cc. of 5 per cent glucose in distilled water. Many patients with obstructive uropathy have purposely restricted their fluid intake in order to avoid rapid distention of the urinary bladder. As a supportive medication, a mild diuretic (aminophylline 9 gr. daily) and multiple vitamins, especially ascorbic acids (75 to 100 mgm.) are administered as are urinary antiseptics, sulfadiazine or sulfathiazole (2 gm.) daily and an alkaline drug (sodium bicarbonate) or mandelic acid and its derivatives. More recently, penicillin has been used. Periodic urea-nitrogen levels are determined and upon stabilization at a constant level within or even slightly above the normal limits, the patient is ready for suprapubic or transurethral prostatectomy. This period may vary from four to five days to several weeks.

3. In patients presenting advanced uropathy due to bladder neck obstruction or other secondary complicating diseases, a suprapubic drainage tube may be inserted. This is accomplished under local anesthesia by the trocar method or the customary suprapubic cystostomy. The more common urological conditions requiring such approach are urethral stricture, advanced carcinoma of the prostate gland or epididymitis, marked cystitis with or without pyelonephritis, marked azotemia and those who do not tolerate urethral catheterization. Again, if the patient is not too debilitated, ambulation is encouraged. Medication is essentially the same, but the chemotherapeutic drugs such as the sulfonamides should be very carefully administered in view of the obstructive uropathy and the older mandelates or the more recent penicillin are indicated. When carcinoma of the prostate gland is demonstrated preoperatively by (1) metastasis to the bones, (2) elevation of serum acid phosphatase above 5 King Armstrong units, with frequent associated sharp elevation of the sedimentation rate, and (3) rectal examination revealing nodes verified by prostatic biopsy, immediate institution of proper therapy becomes important. Among the synthetic estrogenic substances diethylstilbesterol (5 mgm. daily) is administered orally or parenterally. The natural estrogenic substances (estinyl-premarine) have been well tolerated. Depending upon the extent of bladder neck obstruction, the patient is subjected to bilateral subcapsular orchiectomy to be followed by transurethral prostatectomy or vice versa, and in very early cases, total perineal prostatectomy. In our experience, adenocarcinoma of the prostate gland has responded well to combined orchiectomy and estrogenic therapy, while in the undifferentiated cell carcinoma, the treatment has proven very disappointing.

POSTOPERATIVE CARE

Following transurethral resection, hemorrhage and intravesical clot formation are controlled by continuous sterile water irrigation through a two-way catheter with a hemostatic bag. The second most distressing complication, gaseous distention, is relieved by administration of prostigmine, rectal tube, and in some cases a low soap suds enema. Irrigation is maintained for forty-eight hours after which the bladder is thoroughly irrigated with a syringe and the catheter removed. The bowel is thoroughly cleansed with one to two ounces of emulsion of castor-oil and enema. The patient is encouraged to be ambulatory the day after the catheter is removed. High caloric, non-constipating diet is resumed as soon as possible. Ascorbic acid 75 to 100 mgm. and calcium gluconate, 60 grains, are given routinely to all post-transurethral prostatectomy cases. Ligatures to the vas deferens applied prior to or during surgery are removed on the ninth day, and the patient is discharged on the tenth or eleventh day.

Following suprapubic prostatectomy by our modified technic, the indwelling urethral catheter or the suprapubic drainage tube is irrigated every three or four hours with sterile normal saline solution for the first twenty-four hours. It is then irrigated twice daily for the next six days at which time the catheter is changed. After the suprapubic incision has been dry for three days the catheter is removed. It has been possible by our method to have the patient ambulatory on the fifth or sixth day and he is generally discharged from the hospital from the tenth to the fourteenth postoperative day. In those few patients who bleed excessively following enucleation, the prostatic fossa is packed with a long strip of gauze which is removed after twenty-four hours under short intravenous anesthesia.

Late postoperative complications following prostatectomy are occasionally seen. Postoperative stricture is easily relieved by monthly passage of sounds and instillation of mild urinary antiseptic solution. Slight hemorrhage after the patient has been discharged can be controlled by irrigation of the bladder with an antiseptic solution and the establishment of free urinary drainage. If bleeding is excessive, a cystoscopic examination is indicated and such complications can be frequently managed by electro-fulguration and the use of coagulants. Incontinence must be controlled by the use of penile clamp or the use of a portable urinal. Infection must be promptly treated by irrigation, chemotherapy, and establishment of free drainage of urine.

Among the patients with adenocarcinoma of the prostate gland who have been treated by prostatic resection and orchiectomy, we have routinely administered 5 mgm. of diethylstilbesterol orally or parenterally for 30 to 50 days. Those who cannot tolerate this medication are given the natural estrogenic hormones (estinyl-premarin). This medication is stopped as soon as the patient complains of pain and hyperplasia of the mammary glands (a frequent complication). As soon as this complication subsides, estrogenic substances are administered intermittently or at a sustained low maintenance dose. Due to the nature of this disease, bladder neck obstruction may recur, requiring one or more resections.

OPERATION UPON THE BLADDER
PREOPERATIVE PREPARATION:

Following cystoscopy and cystography, in selected cases, the upper urinary tract must be evaluated by excretory or retrograde urography. The former is preferred because it eliminates the hazards of secondary complications attending retrograde urography through an infectious or malignant bladder.

In the preoperative preparation of a patient without signs of vesical infection, adequate urinary output is assured by free intake of fluid, daily intake of two grams of sulfadiazine or sulfathiazole with an alkaline to establish urinary antisepsis. When infection is demonstrable, this is supplemented by continuous or intermittent irrigation of the bladder with an antiseptic solution, such as Solution G, dilute zephrin chloride, or dilute permanganate. Postural changes should be encouraged in order to avoid sedimentation of the debris at the base or within a diverticulum. Patients presenting malignant lesions of the bladder require additional consultation with the roentgenologist for possible preoperative therapy.

The patient is prepared for operation by the customary soap suds enema and the administration of sedatives. Breakfast is withheld and before going to the operating room, atropine sulphate is administered. The bladder is thoroughly irrigated and moderately distended with normal sterile water just prior to surgery. For transurethral removal of bladder tumor and implantation of radon seeds this last procedure can be omitted. Cystoscopic examinations must be made at regular intervals (monthly) even if no recurrence is seen.

POSTOPERATIVE CARE:

In simple cystostomy, the rubber tissue drainage tube is removed in forty-eight hours and the suprapubic drainage catheter is irrigated once or twice a day. As soon as the urine becomes clear and free from infection, it may be irrigated less frequently. For cystostomy following operation upon the bladder wall, as in traumatic rupture, resection of bladder wall for diverticulum or tumor, the drainage catheter is irrigated every four to six hours with sterile saline solution to avoid formation of blood clots and obstruction to the catheter. In the absence of infection and persistent bleeding, the catheter is removed on the tenth to fourteenth day.

In malignant diseases of the bladder wall, deep x-ray therapy is generally begun on the seventh to tenth day. Radon seeds, implanted at the time of operation, are removed after the required exposure. Radiocystitis or chronic injury of the urinary bladder following therapeutic irradiation is often protracted and very distressing. This complication can be greatly alleviated by closer cooperation between the urologist and the roentgenologist.

* * *

Operations Upon the Ureters*

Preparation of the patient is not unlike that for renal surgery, with emphasis placed on sterility of the urine and a flexible operative technic.

Calculus lodged within the ureters should be verified by urography, not only to determine the size and position of the obstructive mass, but also to evaluate the extent of obstructive uropathy. Further analysis including the evidence of infection and presence of co-existing diseases, such as early hyperparathyroidism, is of paramount interest in the correct management of the case.

A conservative approach is indicated in patients demonstrating solitary calculus within the ureter within minimum trauma to the kidney. The bowel is thoroughly cleansed by purgation (neoloid, 1 to 2 ounces) followed by a soap suds enema. Medication consists of oral or parenteral administration of anti-spasmodic agents, such as belladonna and its derivatives, deproteinated pancreatic extracts (depropanex), and synthetic agents such as syntrapan and amethone. Supplementary use of barbiturates (phenobarbital, gr. ¼ to ½ three times daily) are an aid in relaxing the patient and alleviating apprehension. Fluid is forced (total intake approximately four to five liters) and in those distressed by nausea or vomiting, this is accomplished by venoclysis of 5 per cent glucose solution. Unless incapacitated by pain requiring opiates, the patient is kept ambulatory throughout the day. If non-operative treatment fails, or if the patient's initial urological findings suggest surgical intervention, the patient is prepared for operation in the customary manner. This consists essentially of an enema and sedation the night before followed by withholding breakfast and atropine sulphate on call. In some cases complicated by infected hydronephrosis, the use of a urinary antiseptic, such as the mandelates and penicillin is preferred to the sulfonamides.

The postoperative care consists essentially of maintaining adequate drainage of urine and the control of secondary infection.

TRANSPLANTATION OF THE URETERS

The transplantation of the ureters either to the skin or bowel is indicated in congenital exstrophy of the bladder, certain bladder neck malformations, malignancies of the bladder, and chronic vesical infections, such as tuberculous healed cystitis and intractable interstitial cystitis.

The preparation and postoperative care for transplantation of the ureter or ureters to the skin are relatively simple. Following customary preparation, the ureteral orifices are exteriorized and a suitable urethral catheter is inserted. The caliber of the transplanted ureter determines the size of the catheter required to assure non-leakage. The tip of the catheter must be in the renal pelvis. The renal pelves are irrigated once or twice a week with antiseptic solution or plain sterile water and the catheters are changed once a week. A special drainage bag carried in a pocket of the drawers permits normal activity and the patient can rapidly be taught how and when to change the catheter.

PREPARATION FOR EXTRAPERITONEAL URETERO-INTESTINAL ANASTOMOSIS

Following complete diagnostic studies, including roentgenological examination of the lower bowel, the patient is familiarized with the complexity of the operation and the subsequent care of him, or herself. Complete cooperation between the surgeon and the patient is necessary. This last factor cannot be over-emphasized when one reviews the complications resulting from the negligence of patients.

Four days before operation, the patient is placed upon a high caloric, non-residue diet supplemented by vitamins (multiple vitamin capsule) and the orally administered protein hydrolysate to insure adequate protein nutrition. Daily purgation with eight ounces of 1:8 dilution of magnesium sulphate solution in eight divided doses is given every fifteen minutes. The lower bowel is cleansed daily with soap suds enemas. Simultaneously, preoperative administration of bacteriostatic sulfonamides poorly absorbed by the gastrointestinal tract are recommended. The two useful drugs are succinyl-sulfathiazole 'sulfasuxidine' (0.2 to 0.3 gram per kilogram of body weight daily, or approximately 20 grams) and phthalylsulfathiazole 'sulfathalidine' (0.1 gram per kilogram of body weight daily, or approximately 7 grams). Fluid balance must be maintained. Apprehension is allayed by mild sedation (phenobarbital, gr. ¼ to ½ three times daily) and soothing ointments (boric acid ointment) to the irritable anal orifice. Morale is kept as high as possible by allowing the patient to be ambulatory.

On the day before operation, magnesium sulphate solution is not given; instead, peristalsis is inhibited by one dram of paregoric given three times that day. That evening and the following morning the lower bowel is thoroughly cleansed with soap suds enema followed by sterile physiologic saline irrigation. The rectum is decompressed by the insertion of a rectal tube. Atropine sulphate (gr. 1/150) and seconal (gr. 1½) are administered preoperatively.

POSTOPERATIVE CARE

A rectal tube is immediately re-inserted to keep the lower bowel decompressed. This relieves any tension upon the site of operation due to gaseous distention and permits visualization of the urinary excretion. Intestinal atony and gaseous distention following intestinal surgery are treated by administration of prostigmine (1:2000 every hour for 3 to 6 hours with or without Wangensteen suction drainage). Fluid balance is maintained by administration of 1,000 to 3,000 cc. of 5 per cent glucose in normal saline solution. Parenteral amino-acids and vitamins have also been used with beneficial results. As soon as the patient is able to tolerate liquids by mouth, sulfonamide therapy is continued, together with the non-residue diet and oral intake of proteins. The rectal tube is changed daily and the lower bowel is irrigated daily with warm sterile saline solution. On the fifth day the rectal tube is removed and the patient is placed on a more adequate but low-residue diet. The patient is generally ambulatory on the tenth day. If a two-stage operation is done, two weeks is allowed to ensue between operations. A complete study of the transplanted upper urinary tract is completed by excretory urography. If the function is satisfactory, the patient is ready for the second stage. Preparation is essentially the same, but with less purgation and the omission of the daily cleansing enema, except in the evening prior to, and the morning of the operation. Postoperative care is essentially the same. Following a complete re-examination of both kidneys by excretory urography and the estimation of blood chemistry, the patient is discharged.

OPERATIONS UPON THE KIDNEY
PREOPERATIVE CARE

Surgical procedures for the correction of renal lesions may be conveniently classified under (1) cases requiring immediate surgery, (2) cases requiring further studies prior to surgery, and (3) cases requiring other treatment prior to surgery.

Carcinoma of the kidney requires intensive treatment prior to surgery. The latest accepted method of treatment consists of a combination of preoperative and postoperative irradiation and surgery. When extensive metastasis to the lungs or bone are demonstrable, nephrectomy may not be advisable. Nevertheless, the pain due to bony metastasis may be relieved by x-ray treatments. Preoperative irradiation will decrease the size of highly radio-sensitive tumors making surgery easier and safer and also tends to inhibit the growth of malignant cells which may be left behind. Frequent neoplastic implantation of the parenchymatous and pelvic tumors along the course of the ureter and even into the bladder wall have made local irradiation of the ureter and the bladder wall a well recommended form of therapy prior to a complete nephroureterectomy and partial bladder wall resection around the ureteral orifice. The dosage and the period of irradiation is not within the scope of this paper, but one may briefly mention that most preoperative irradiation is given from ten to twenty days and should be followed by immediate surgical removal of the diseased organs.

PREPARATION OF PATIENT FOR KIDNEY SURGERY

The routine preparation for kidney surgery, aside from the preliminary care, previously discussed, has been greatly simplified at our clinic and the results have been very satisfactory. The night before operation, the patient's condition is briefly evaluated by the resident. The patient is given a cleansing soap suds enema and sedation (seconal, gr. ½ or sodium amytal, gr. 3) to insure a good night's rest. On the morning of the operation, breakfast is not given, the patient is prepared for surgery by general bath, after which the operative field is shaved and cleansed with tincture of green soap and sterile water. Again, the preoperative medication consists essentially of atropine sulphate, gr. 1/150 and in some cases barbiturates for sedation.

POSTOPERATIVE CARE

Following nephrectomy and simple pyelotomy, sedation and intravenous fluids are administered as indicated. The patient is generally kept recumbent for the first forty-eight hours and on the third day, as the drain is shortened, greater freedom is permitted. Generally on the fifth day, the Fowler position is allowable, with relative ease and comfort. Throughout postoperative inactivity passive massage and exercise are encouraged. Early return to normal diet is supplemented by ascorbic acid (75/100 mgm.) and other vitamins. The bowels are kept open by a gentle laxative, such as cascara and mineral oil. The patient is generally ambulatory by the tenth postoperative day.

Following renal sympathectomy for our treatment of nephroptosis, the patient is kept in a Trendelenberg position for four days. On the fifth day the normal recumbent position is permitted and the patient is allowed to sit up on the tenth day. The complications attending such abnormal posture are practically nil. They consist essentially of retention of urine, requiring catheterization, and sluggish bowel movements, which require the assistance of enemas and prostigmine.

Following nephrostomy, the postoperative care is somewhat modified depending upon the findings at operation. Following the removal of a well-formed stone within the upper urinary tract without secondary infection or debris formation, the nephrostomy tubes are removed in ten to twenty days. Following nephrolithotomy and plastic repair of the upper urinary tract, drainage is maintained for four to five weeks.

In the presence of infection and calcareous debris, the renal pelvis is irrigated continuously or intermittently with Solution G, Solution M, dilute zephrin chloride solution (1-5,000 or 1-10,000) or sterile water. Early ambulation is encouraged and, although patients are afraid of dislodging the catheter, this has proven unjustifiable when the catheter has been properly inserted. Diet is supplemented with high intake of vitamin A and D in the form of cod liver oil or its equivalents. Following removal of catheters, the draining fistula generally closes spontaneously within twenty-four hours.

Two weeks after the operation and just prior to discharge from the hospital, intravenous urograms are taken to determine renal function and to detect any secondary concretions.

CONCLUSIONS

The preoperative and postoperative care of urological patients should be on sound physiochemical basis. The psychiatric evaluation of the patient must not be overlooked. Competent care of a patient depends upon the services of a well-trained nurse. Fluid balance and electrolyte balance must be established. Parenteral feeding has been greatly simplified and maintenance diet can be met by this procedure. Early postoperative activity is desirable and has been satisfactorily carried out in our clinic.

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IN THIS ISSUE

A MOST interesting paper on medical problems of the surgical patient by Dr. George B. Eusterman of the Mayo Clinic was presented at the last Annual Sessions of the Nebraska State Medical Assembly. We present it here on page 5

A COMPREHENSIVE discussion on urological problems, particularly those connected with surgical measures was a part of the same morning session that Dr. Eusterman read his paper. This discussion was by Drs. Elmer Hess and Charles Tahara, of Erie, Pa. It is reprinted in detail on page 9

FUNCTIONAL indigestion is a ubiquitous problem with many ramifications. Those who heard Dr. M. C. Howard at the last annual sessions of our Association will recall the interest created by his discussion of the problem. You can now read it on page 18

THE USE of forceps during the second stage of labor was presented by Dr. L. A. Calkins of Kansas City, Kan., during the annual sessions of the Association. It is a comprehensive lecture which many of our readers enjoyed. This paper is on page 23

WE ALL remember the time when surgical patients were not permitted to change their postures for days after the operation. The past few years surgeons have become, from the patient's standpoint, more agreeable. An excellent paper is here submitted by Dr. Harley Anderson, discussing early ambulation in gynecology and obstetrics. This article is found on page 26

AGAIN we present a report which is part of the proceedings of the Methodist Hospital staff of Omaha. These proceedings speak for themselves on page 29

Functional Indigestion*

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The expression "functional indigestion" is the usual classification for gastro-intestinal symptoms unrelated to organic lesions. In reviewing one hundred consecutive case records in which the complaint was stomach trouble and the symptoms appeared to be on an organic basis the following information was derived. In 22 cases a duodenal ulcer was the basis of the gastric upset; in 2 cases it was a gastric ulcer; in 2 other cases a gastric and duodenal ulcer; in 12 cases a cholelithiasis; in 7 cases a non-functioning gallbladder; in 5 cases a diverticulosis of the colon; in 1 case a diaphragmatic hernia, in 1 case a carcinoma of the sigmoid. In 4 cases with a non-functioning gallbladder a history of colic was noted; and in 2 cases with a diverticulosis, the symptoms were not associated with this condition. This review of 100 consecutive case records reveals the fact that 46 per cent had a pathological basis for their symptoms, while in 54 per cent no apparent pathology was found, and the symptoms were considered to be functional in origin.

In the 54 case records in which diagnoses of functional indigestion were made, the symptoms included pain either local or general, associated with, or independent of food, and the time element following its ingestion. Bloating, belching, constipation, or the passing of gas, and other symptoms apparently of gastro-intestinal origin were encountered. Many of these symptoms had been of a long duration; in some instances however there were periods when no symptoms were present.

In reviewing 354 case records in each of which a diagnosis of functional indigestion had been made, Wilbur & Mills(1) reported that the diagnosis was confirmed in 303 cases when this group returned and was reexamined at the Mayo Clinic after an average of seven years. It was their opinion that the diagnosis of functional indigestion can be made with considerable accuracy by a careful examination.

Since the symptoms of functional indigestion are not based upon an organic lesion, it will frequently be found that nervousness, worry, or fear are the factors which have precipitated the gastro-intestinal symptoms. As many of these patients are suffering from a neurosis, a correct evaluation of this fact must be determined when the patient comes under observation.

It might be well to state in this connection that the neurotic is not to be confused with the psychotic. The neurotic is concerned with his body aches and pains; the psychotic with his mental state. The neurotic is anxious to seek medical relief; the psychotic is usually brought in by force. The neurotic is affable, delights in discussing his symptoms and frequently cannot be stopped; the psychotic does not care to discuss his condition. The neurotic rarely contemplates suicide; the psychotic often does. According to Ross(2) this classification of the neurotic and psychotic is distinct, and no "borderline" states exist.

In the treatment of functional indigestion a complete history is essential because the omission of important facts may lead to error. Such patients should be cordially greeted and not made to feel as though they are a medical nuisance. Shaking of hands is a mere formality, but it may be diagnostic at times. A warm, firm hand does not rule out a neurosis; but a cold lifeless hand may suggest one. An enumeration of complaints is in order, and the patient should be encouraged to tell his story as he sees it. Leading, or suggestive questions should not be used. After a complete history has been taken, one must attempt to interpret the symptoms. Are the symptoms continuous; have they persisted for weeks or months; or are they intermittent with periods of freedom between the attacks? If continuous, they are suggestive of a neurosis. If intermittent, the symptoms are probably due to an organic lesion, unless they are associated with a temporary maladjustment of the patient's emotional life. Do the symptoms follow a definite pattern as in ulcer, calculous gallbladder, attacks of appendicitis, ureteral stone or pelvic disease? If the pattern of symptoms is constantly broken, and it is apparent that the symptoms are chronic, one must consider the case as a neurosis(3).

To complete the history, symptoms irrelevant to the chief complaint should be investigated either as to functional or organic origin. Every other system should be thoroughly explored. While the history is being taken, an evaluation can be made of the patient. Then go into the family history, and especially the personal details of the patient with regard to illnesses, operations, or disturbing influences in his life. In either functional or organic lesions the history is a most important step in making a diagnosis, and it should be complete in every detail. A history poorly taken may often lead to a faulty diagnosis.

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*Read before the Annual Assembly of the Nebraska State Medical Association, May 7, 1946.

After the history of the case has been taken the physical examination should be just as orderly and as thorough. When thus completed it should not be necessary to re-examine the abdomen every time the patient comes to the office. If the physician should do so, it would only make the patient more conscious of his functional disability, and possibly arouse in him a suspicion that the physician is not quite sure of his diagnosis, or that he is keeping some information from him.

The next point is the laboratory procedures. When the patient is interviewed for the first time, he should be given the benefit of any doubt, and all necessary laboratory work should be done, including roentgenological examination of the gastro-intestinal tract. At times these patients expect such procedures in order to prove to them that their symptoms are not based on organic disease.

In diagnosing an actual gastro-intestinal neurosis the fact of its presence may be quite apparent since the symptoms are functional in origin and have no organic background.

This was made manifest several years ago by a patient, a thin 30-year-old Syrian woman, single, who complained of pain in the lower abdomen. The pain had been present for six days and had developed during her vacation on the west coast. The diagnosis there was acute appendicitis. She decided to return home and made the journey by automobile. Besides the pain, she complained of slight nausea; there was no vomiting but partial loss of appetite. As she was giving her history she showed signs of mild hysteria, and was sure that her appendix had ruptured. An examination showed that there were no findings consistent with acute appendicitis; moreover, laboratory data were negative. On further questioning it was found that her vacation did not include enough time for her social obligations and the hours required for rest. The pain had begun about the time she realized that she was physically exhausted. The patient was assured that she was in need of rest and that there was no reason for removing her appendix; that a few days in bed and a soft diet would relieve the symptoms. This advice was not followed. She had her appendix removed and a gastric lesion resected, but the relief was only temporary. Several months later she had a partial gastric resection, which in turn gave her no relief from her gastro-intestinal symptoms, but was further complicated by gastric distress and frequent bowel movements after the ingestion of food.

At this time I advised her to consult a gastroenterologist well known for his work in functional diseases. After a time he convinced the patient that her frail body and nervous temperament were inadequate for the strain which she had put upon them. She must take more hours for rest and fewer for social functions. Moreover, he discovered that her non-marital state was a source of worry, and suggested that she come to a definite decision in the matter.

This case history is an illustration of the fact that even a correct diagnosis may not be complete because the neurotic element had not been properly handled. The patient should have been hospitalized instead of being allowed to return home. If this had been done, the rest advised would have been provided for. While under observation in the hospital a more detailed history could have been elicited and a consultation held if required. It is apparent that surgery was not indicated, and that the months of semi-invalidism which she endured were unnecessary. It was not until the neurosis was properly treated that the patient was freed of her symptoms.

In taking a thorough history it is often necessary to inquire into conditions as they exist in the home.

A tense, multiparous woman, 38 years of age, complained of pelvic pain, excessive flow at her period, and constipation. She had had a breast tumor removed, an appendectomy, and a ligation of tubes within three years. She was now advised to have a myomatous uterus removed, not only for relief of her pelvic condition, but also for the constipation. Her home life apparently was normal, her marital relations satisfactory, there was no fear of pregnancy, and her children gave her little concern. The myomatous uterus was slightly enlarged and retro-placed.

I advised against surgery. On her second visit it was discovered that her home life was not as smooth as she had previously outlined it. She had omitted to state that her father, who was suffering from a well advanced Parkinsonian syndrome, was living in her home. Constant care of him was becoming a burden, and his symptoms were disturbing other members of the family. After discussing this problem with her, she agreed to his removal to a nursing home where better care could be provided. Within several months the tenseness disappeared, the constipation was lessened through the development of better habits, and the pelvic symptoms were not quite so severe.

It is difficult to explain why so many women have their emotional difficulties transferred into the pelvic organs, and have organic symptoms with this transference. If organic symptoms are actual and organic disease is the basis of the symptoms, the diseased organs should be removed. Routine suspension of retrodisplaced uteri, or the removal of small myomatous uteri will not relieve this emotional transference and rarely affects constipation.

After a fair evaluation of the patient and his symptoms have been made, one should inquire into the family history. Are any other members of the family chronically ill? Can they meet the daily problems of life, or do they side-step them as they arise? Ill health may be a heritage, and this information is important in evaluating the symptoms of a neurotic.

Recently two sisters were seen who had various complaints over a period of years. One of them had a diurnal frequency of urination with pain; the findings however were negative. On questioning it developed that her husband had an acute cardiac attack several weeks before, and her symptoms had developed shortly thereafter. As he improved her urinary symptoms disappeared.

The second sister, unmarried and forty years of age, had always had chronic "stomach trouble." She managed to get along and maintain a weight above normal. Repeated examinations by competent physicians were negative. At the time I saw her she complained of diffuse pains throughout her abdomen, loss of appetite, distention, and morning nausea. The nausea was the symptom that worried her. In discussing this symptom it was soon apparent that she was haunted by two fears, pregnancy and venereal disease. When assured that neither existed she was soon free from the nausea and the acute exacerbation of her chronic "stomach trouble." In both these sisters emotional shock produced symptoms apparently organic in origin, but actually functional in nature.

Another type of nervous indigestion is that due to the irritable bowel. Under favorable circumstances it may be asymptomatic, but it becomes symptomatic under stress and strain. When symptomatic the patient complains of gastric distress, soreness in the lower abdomen, frequent bowel movements and the passage of mucous and gas.

A patient of this type has been under observation for several years. His general appearance is that of a normal individual and shows none of the stigmata of a neurotic. His personal history is the usual one of progress from the factory to the front office. As his social and economic position improved, he developed symptoms of an irritable gastro-intestinal tract. To add to his misery he became sensitive to certain foods. The important point in his history however was that the behavior of his gastro-intestinal tract was a barometric reading of his social and economic difficulties. When these were at a low ebb, he was comparatively free of any bowel disturbances; when relieved of responsibility, he had no symptoms. His annual vacation was spent in the North Woods, where he reverted to the carefree habits of his early life, and indulged in all types of food and drink. There he had no gastric distress and the frequent bowel movements were reduced in number.

This type of patient is a medical problem. He has already seen a number of physicians, and may have visited several of the larger clinics. He is to all appearances a victim of circumstances. If he had remained in the factory, and had not been forced to meet obligations which were beyond his mental capacity, he probably would have led a normal life. The proper treatment of this type of neurosis will depend upon the patient finding a physician who will counsel him, rather than consult him. His emotional instability must be adjusted to the level he has attained. This is true of most patients who have an irritable gastro-intestinal tract resulting from changes which have taken place in their lives. These changes may be economical, social, marital, extra-marital, or occupational, but they must be taken into full consideration in order to advise the patient in his readjustment to a normal emotional life, so that his physical well being may approximate that of the normal individual.

It may be worth while to consider another group of patients who are a diagnostic problem to the medical practitioner. They are women who have had two or more operations with no permanent relief of the original symptoms. In most cases attacks of nausea, vomiting, and abdominal distress have been recurring over a period of years. At times the abdominal distress was so localized that it was described and interpreted as pain arising from some particular organ, with the result that an appendix, a tube, an ovary or a gallbladder was removed. Each surgical attack gave temporary relief.

In treating a patient of this type it is important to elicit if possible, the chain of events that usually preceded the gastro-intestinal upset. The physician will discover often enough that headaches preceded or accompanied these attacks. The headaches were regarded as nervous in origin, unless the patient was prostrated. In the latter event, a migraine was taken for granted. As such patients approach the menopause, the headaches become less severe and the abdominal symptoms more prominent. The diagnostic problem then is to determine whether the present gastro-intestinal symptoms are still a part of the migrainous abdomen, or if a partial obstruction has complicated the picture. This requires careful study by the physician, the surgeon, and the roentgenologist. If the obstruction is actual, surgery is indicated. The patient however remains a medical problem whether obstructed or non-obstructed, for the severence of adhesions will never relieve abdominal distress in a migrainous patient.

The treatment of a patient with functional indigestion is usually based upon the fact that none of the symptoms has an organic background but is the result of an emotional disturbance occurring in the life of a normal individual. This upset has changed the normal functions of the gastro-intestinal tract and in turn physical symptoms have been produced. Treatment is based primarily on the history and the fact that no organic lesion has been found as a cause of the illness. In my experience I have found that fear has been one of the dominant factors in bringing these patients to the office for medical advice. This fear is usually based upon the idea that an organic lesion is present and is giving rise to physical symptoms. Fear may be defined as the pain of anticipated pain. The elimination of this symptom or any other emotional abnormality is the first step in the treatment of functional indigestion. Patients with this type of indigestion are normal individuals suffering from a neurosis and should not be confused with the psychotic or insane.

When the emotional factor has been satisfactorily explained to the patient I know of no reason in selected cases why dietary instructions are not indicated; nor can I agree with much of the present day literature(4, 5) that mild sedatives are contra-indicated. After twenty-five years I am convinced that dietary and medicinal measures may be of value in the treatment of functional indigestion, not as a cure but as an adjunct to the solution of the neurosis.

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DISCUSSION BY
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In Dr. Howard's paper I would like to challenge one statement, namely the question of our ability to distinctly separate diagnostically the neurosis from the psychosis. While it is true that the neurotics usually have relatively more insight and the functionally psychotic is more completely out of touch with reality, there are no true distinct lines of separation. For example, many anxiety states often mask as true depressions and may be suicidal, while the schizophrenic may start out with hysterical symptoms.

We are on safer ground if we speak of minor and major emotional illnesses.

The psychosomatic conditions that Dr. Howard discussed are called in the new army nomenclature, somatization syndromes. They are classified as psychogenic reactions of the various systems, cardiac, gastro intestinal, genital urinary, etc. The emotional factor is anxiety expressed through the autonomic nervous system into visceral symptoms.

Under this classification Dr. Howard's cases would be called psychogenic gastro intestinal, which includes ulcer-like reaction, gastritis, hyperacidity, heart burn, pylorospasm, irritable colon, etc. These individuals are tense, hard driving, compulsive as to achievement, with a denial and suppression of their passive wishes. Actual organic lesions such as peptic ulcer may develop. The chronic emotional stress likewise causes hyperacidity and later ulcer. Colonic symptoms may develop in a similar fashion from anorexia, a diet of low residue and mucus colitis. Later ulcerative symptoms occur all from an original psychogenic basis.

The gastro intestinal conscious patient with functional 'symtomatology (anxiety or depression) often receives illogical treatment. The overemphasis of organic pathology and overlooking of mental factors as causative, largely from inadequate incomplete histories, are responsible for the errors in these cases. All cases of spastic colitis are symptomatic of anxiety or depressed states. These patients are rigid personalities. They demand medical and dietary regimes and invite surgical procedures.

Drugs are only palliative and their indiscriminate use tends to fixate hypochondriasis. In my experience, these patients respond better to strict psychotherapy, full nutritious diet, complete avoidance of catharatics and sometimes the use of small doses of insulin for weight gaining and last, but most important, psychotherapy for anxiety states and convulsive shock therapy if the patient is definitely depressed.

The internists must interest themselves further in these problems as Dr. Howard has outlined and learn to practice scientific psychotherapy if we are ever to do the right thing for emotional illnesses, which represent the majority of illnesses seen in our patients.

MAURICE C. HOWARD: It is still my opinion that the majority of patients coming to the office in which no organic lesion has been found have their symptoms as the result of a neurosis. I also feel that a definite diagnosis can and should be made between the neurotic and the psychotic.

The individual who is suffering with a neurosis and who has symptoms of gastro-intestinal nature should be treated by the general practitioner. On the other hand, any patient who is considered to be psychotic and who has gastro-intestinal symptoms as a result of a definite psychosis should be treated by the psychiatrist.

I wish to thank Dr. Bennett for his timely discussion. Although we do not agree in toto, we nevertheless are of the opinion that many individuals with gastro-intestinal symptoms have no organic lesion as a basis.

* * *

PROBLEM OF IMPAIRED HEARING RESTS ON TREATMENT AND CURE

Emphasis in the problem of impaired hearing should be placed on treatment and cure rather than on prevention, according to A. C. Furstenberg, M.D., of Ann Arbor, Mich.

Writing in a recent issue of The Journal of the American Medical Association, Dr. Furstenberg states: "I have never been convinced of the truth of the often published statement that 75 to 80 per cent of all cases of impaired hearing are preventable, and that this large proporition of its victims could have avoided their affliction had it been identified early and had proper methods of prevention been instituted. How can one prevent a degeneration of the auditory nerves which often occurs as the result of severe toxic diseases? . . . How are physicians to keep the eustachian tubes of children in working order and the middle ears free from infection during the course of diseases which infect the upper respiratory tract, particularly measles, scarlet fever, mumps and whooping cough?"

World War II saw the first practical adoption of a program for the treatment of deafness. "I point with pride and with a deep sense of gratitude," the author writes, "to those far sighted and efficient representatives of the Army and Navy who created an epochal program of service by the establishment and efficient operation of four centers for the rehabilitation of the hard of hearing in military service. These important units located at strategic points in the United States, Deshon General Hospital at Butler, Pa., Borden General Hospital at Chickasha, Okla., Hoff General Hospital in Santa Barbara, Calif., and the U. S. Naval Hospital at Philadelphia, have done a colossal job and have achieved memorable progress in the care of the hard of hearing that will not fail to attain lasting recognition. The pioneers in this field wisely combined all available talents—those of the otologist, psychiatrist, psychologist, physicist, electrical and acoustic engineers and speech experts to function in an integrated and cooperative program that has rendered service of inestimable value to the unfortunate persons whose hearing was impaired in the line of duty. It remains now for civilian physicians and for public health and welfare agencies interested in this field to become familiar with the yeoman service of these great centers and to establish several more along similar lines, geographically located to render the greatest possible service to the people of this country. Unfortunately, progress in civic agencies is frequently slow, but the impetus given this magnificent program of service to the hard of hearing by military personnel is destined to inspire, if not demand, a similar plan of action in civilian life."

TREATMENT OF SPRUE

Sprue has shown a striking response to treatment with synthetic folic acid, one of the B complex vitamins, according to an article in the December 14 issue of The Journal of the American Medical Association.

Guillermo Garcia Lopez, M.D., Havana, Cuba; Tom D. Spies, M.D., Birmingham, Ala.; Jose Aristides Menendez, M.D., and Ruben Lopez Toca, M.D., of Havana, Cuba — conducted this experiment for the University of Cincinnati Studies in Nutrition at the Calixto Garcia Hospital, Havana, in cooperation with the Institute of Nutrition of Cuba and the University of Havana.

Treatment of the 18 patients with sprue admitted to the hospital for the purpose of the study consisted of a rigidly controlled diet with meat, meat products, fish and poultry excluded and only one quart of milk and one egg allowed daily. All other foods were allowed to the extent desired. The folic acid was given by mouth between meals.

Sprue, a chronic disease, is characterized by inflammation of the tongue, diarrhea, loss of weight, reduction in the number of white blood cells and poor absorption from the intestines. As the authors point out, nutritional deficiency causes the disease. They state that the patients' "dietary histories revealed that in every instance the dietary had not been completely adequate even prior to the onset of illness. The foods conspicuously lacking or eaten in insufficient amounts were meat, fish, poultry, eggs and milk. In all cases cereal foods, root vegetables and dried beans had been the foods used most commonly and in the most liberal amounts. Following the onset of illness, loss of appetite and soreness of the tongue had so interfered with the intake of food that in each case the diet of the patient was grossly deficient in all nutrients."

Macrocytic anemia accompanies sprue. The doctors have demonstrated that folic acid makes the blood cells pass through the normal stages to maturity.

"Before the introduction of folic acid there was not a known chemical substance that had any profound effect on the ultimate course of the sprue," state the authors.

However, they noted that "after the administration of the folic acid there was a prompt regeneration of the blood and a tendency of the alimentary tract to return to normal function." Even when pathogenic intestinal parasites were present they did not prevent those who harbored them from being profoundly benefited. "We make no claim," they state, "that the folic acid in any way adversely affected the parasites, and all our examinations indicated that they continued to thrive in the intestinal tracts of our patients."

Some Remarks on the Second Stage of Labor with Reference to the Use of Forceps*

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The indications for the use of forceps in labor have always been said to be relative. With the exception of a few rather clear cut indications, such as mitral stenosis and placenta previa bleeding in the second stage, all other indications are ill defined. Some writers have contended that forceps should be used when their use was less dangerous than their non-use. It has also been agreed that the expert with forceps could, with justification, use them more frequently than the amateur. The chances of his doing harm would presumably be less than the damage which might be done by the less expert. Too early use, too strong traction, traction in the wrong direction, rotation at an improper level, and other improper technics would be less apt to occur in the hands of a thoroughly skilled operator. This uncertainty as to indications has resulted in a great deal of confusion, so that those of us who would like to know just what we should do under given circumstances find very little help in the text books or elsewhere. The result has come to be that no two specialists or general practitioners have the same ideas about the use of forceps. The indication might be said to be the doctor and not the patient or her baby.

The reason for all this confusion and lack of accurate knowledge is quite obviously that we do not know enough about the second stage of labor. The text books tell us in part what happens during the second stage. The description of the second stage in the text books has been fairly complete as to the mechanism of labor, but very inadequate as to when each of the various parts of that mechanism takes place, and more particularly why descent, flexion, internal rotation, and extension occur. Within the last several years, we have been trying to keep accurate records as to when descent occurs, when internal rotation takes place, and what factors govern the ease or difficulty of the whole mechanism of labor. Careful analysis of these clinical records has now given us sufficient information that we feel we know a little better when and why obstetric forceps should be used.

The intensity and frequency of the labor pains in the second stage may be the most important consideration. Contractions of good intensity coming at intervals of two minutes or less will bring about completion of the second stage of labor in one-half hour or less in almost all cases. Pains of lesser intensity or of a longer interval may or may not bring about successful completion of the labor in a short time. This difference is particularly noticeable when other adverse conditions are present, such as large baby, lack of internal rotation, etc.

Voluntary effort is also of great importance in the second stage of labor. This, of course, is contrary to the situation in the first stage where voluntary effort plays no part at all. Since we have no way of accurately measuring voluntary effort, it is difficult to say whether this is more important than the force exerted by the uterine contractions. As one studies the problem, however, he will see numerous examples where voluntary effort is more important than uterine contractions. Since all analgesics and all anesthetics inhibit uterine contractions to a certain extent, and since many of them, particularly continuous caudal anesthesia, tend to completely eliminate voluntary effort, one's management of labor with respect to the second stage may well need to be modified over what he might otherwise use in the first stage.

We have previously pointed out that the size of the baby has no bearing on the first stage of labor. This is more or less true with respect to the second stage, particularly with multiparas. It is not, however, true in primiparas. Other things being equal, a primipara will complete her second stage with a large baby less rapidly and with less ease than she will deliver a small baby. The difference in time is not great. In the absence of other adverse circumstances, three to six minutes will about cover the situation.

Internal rotation, we have found, takes

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*Read before the Annual Session of the Nebraska State Medical Association in Lincoln, May 9, 1946.

place during the latter phase of descent to the pelvic floor in about two-thirds of all cases. In the remaining one-third, rotation occurs after the head is well on the pelvic floor, and in a few instances occurs only partially or not at all. This latter group of late rotation and failure of rotation tends to prolong the second stage to about the same degree as a large baby. Rotation from the posterior position occurs approximately as readily as rotation from the anterior position, although failure of complete rotation in the former is a little bit more frequent. The length of time required is not materially greater.

A combination of large baby and late rotation shows a more pronounced difference than either one alone, and either or both is of importance only in the presence of poor pains, and or, lack of voluntary effort.

In almost all instances, the baby's head enters the pelvis without being completely flexed. The presenting point is at least half way forward toward the anterior fontanelle and often almost in the fontanelle. Flexion of the head does not normally become complete until the head is well on the pelvic floor. Since flexion is not complete under normal circumstances until the head is well on the perineum, it is, of course, false thinking to attribute lack of progress previous to that time to so called "deflexion."

The vagina rarely offers any resistance to the descent of the head. The resistance offered by the pelvic floor is much less than our literature up to now would lead us to believe. It is, indeed, unusual in our clinic for the head to be delayed on the pelvic floor, where the labor pains are good, for more than fifteen minutes. So called "resistant" or "rigid" perineums may occur in cowgirls, but they are not seen in other people.

This brings up a consideration of what is the second stage of labor. Perhaps our thinking needs a little revision on this point. I don't believe anyone in the world can say that a cervix is completely dilated until the head has passed through the cervix. Careful palpation of the cervical rim at the height of a uterine contraction, even when the cervix seems to be completely dilated but not yet retracted over the head, will reveal that the cervix is clamped tightly against the head in those cases where the labor pains are more than minimal in nature. It will also be observed that the head comes down only to a certain point while the cervix is still present. As soon as the cervix is completely out of reach of the examining finger (vaginally), the head almost drops to the pelvic floor. This is without regard to the degree of flexion, the amount of rotation previously present, or the size of the baby. Where the labor pains are very weak, two or three labor pains may be required to bring about descent, particularly if voluntary effort is lacking. Again, the amount of analgesia and anesthesia is a very important factor. In any event, failure of descent to the pelvic floor, when the cervix has been thought to be completely dilated by rectal examination, should be followed by a careful vaginal examination. This is not often necessary in multiparas. In primiparas, however, where the labor pains are weak and infrequent in the final stages of dilatation, it is not unusual that actual dilatation may not be complete for some time after rectal touch can no longer locate a cervical rim. It is a rule in our clinic that a vaginal examination must be made in not over thirty minutes after there is apparent failure of descent. We usually find that the first stage is not yet complete.

The oft stated indication for forceps of "one hour on the perineum without progress" is not a bad rule, except that it fails to take cognizance of the type of pains, the amount of voluntary effort, and other variable factors in the situation. This assumes, of course, that the cervix is completely dilated. It is not infrequent to find the head on the pelvic floor with only partial dilatation or, in less frequent instances, before any dilatation has taken place. In approximately 1,500 consecutive primiparas with good labor pains, there has been almost no instance of the second stage being as long as one hour. With poor pains, on the contrary, plus a large baby, plus late rotation, plus lack of voluntary effort, the "normal" duration of the second stage may well be two hours or more.

In our clinic, where interns and residents are very anxious to learn how to use forceps, we are quite liberal in our indications for their employment. I mention this, not in apology, but in explanation of an incidence which may seem high to some of you. In 1,500 primiparas with good pains, forceps were used 71 times, an incidence of about 5%. In 1,350 primiparas with poor pains (weak contractions, infrequent contractions, or both) forceps were used 325 times for an incidence of 24%. A further break down of this latter group is of some interest. The small babies, both occiput anterior and occiput posterior, both early and late rotation showed an incidence of 20%. The large babies, as a group, showed an incidence of 32%. The large babies which rotated late or not at all showed an incidence of 40%.

Since we have gained this additional information about the second stage, we are less apt to use forceps where the labor pains are good or the voluntary effort satisfactory, since we know that labor will be terminated within a few minutes. I would not give you the impression that we immediately put on forceps in the presence of poor labor pains as soon as the cervix is dilated, because it is not infrequent that the labor pains improve both in intensity and frequency when the head reaches the pelvic floor. With the head on the perineum, however, in the presence of poor pains and lack of voluntary effort, our more recent experience has taught us not to wait two or three hours in the expectation of a spontaneous delivery which so frequently does not take place.

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TYPHOID PATIENTS RESPOND TO THERAPY WITH BACTERIOPHAGE

Five California physicians reduced the death rate to five per cent among a group of 56 typhoid patients who were treated with a virus-like agent known as bacteriophage, according to an article in a recent issue of the Journal of the American Medical Association.

The physicians are Evelynne G. Knouf, of South Pasadena; Walter E. Ward, of Los Angeles; Paul A. Reichle, Los Angeles; A. G. Bower, Pasadena, and Paul M. Hamilton, San Marino.

The authors state that bacteriophage, considered a parasite of bacteria, has been used for the past 10 years in the treatment of patients with typhoid fever in the Communicable Disease Unit of the Los Angeles County General Hospital, with which they are associated.

It is pointed out that the results with these patients were so spectacular because a specific type of bacteriophage was used for each patient. The number of bacteriophages is legion, the article says, but each differs in its ability to attack certain types of bacteria. Each patient was given the specific phage which would attack his own organisms.

The following results were immediately noted: (1) negative blood cultures 24 hours after treatment, (2) absence of fever, (3) immediate clinical improvement.

"One of the most spectacular objective accomplishments of this form of treatment," the doctors write, "was the rapidity with which the patient returned to his normal mental outlook. Within 24 to 48 hours after bacteriophage therapy, the patient who had been comatose and in the 'typhoid state' or who had demonstrated the characteristic whining, querulous, obstreperous manner amazed everyone by his cheerful, grateful, cooperative attitude. A state of well being existed. Also, patients whose anorexia before treatment was so great as to make forced feedings necessary, afterward usually asked for food, weakly at first and later vociferously."

Typhoid fever bacilli are spread by faulty sewerage and contaminated water or through infected persons by fingers, food and flies. Once the typhoid bacilli enter through the mouth they pass on through the stomach, enter the upper intestines, and set up an inflammation of the intestinal walls. They invade the lymph nodes, where they multiply rapidly, and then they enter the blood stream. The death rate for many years has remained around 10 per cent.

The specific bacteriophage in a dextrose solution was administered by injecting it into the veins over a period of four to seven hours. This was usually followed by a moderate chill lasting approximately 30 minutes. After the chill the doctors noted that the temperature began to mount and reached a peak of 105 to 107 F. within three to six hours. The temperature returned to normal within nine and one-half to 24 hours after treatment was started and in most instances remained normal thereafter.

In a discussion which accompanied the article, Dr. Wilton L. Halverson of San Francisco states: "The spectacular nature of the recovery of these patients is something we don't forget when we see the patient go through the episode . . . I believe this is a contribution which will be of great importance to us in typhoid."

TRACE SENSITIVITY TO PLAYING CARDS

Certain chemicals which are used in the finish of playing cards may cause a rash due to hypersensitivity of the person, according to an article in a recent issue of the Journal of the American Medical Association.

Answering a query on which of these chemicals might produce a contact dermatitis, The Journal states:

"The ordinary playing cards are made of paper and stiffened with sizings. Sizings may be any of the natural or synthetic resins or such substances as sodium silicate. Any of the synthetic resins, if they are not completely cured, may cause sensitization dermatitis. Of the natural resins, rosin is the best known sensitizer. Sodium silicate, water-glass, has not been reported as the cause of sensitization dermatitis.

"Within the past few years there have appeared on the market washable playing cards which are made of synthetic plastics. If these are incompletely cured they may cause dermatitis, just as may the synthetic resin sizings. In instances in which the dye comes off the playing cards, it is possible that some one may be sensitive to such dyes."

Early Ambulation in Gynecological Surgery and in Obstetrics

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Part I—Gynecology

Since time immemorial, rest has been one of the most cherished therapeutic aids. It has been described by many of the great European surgeons and internists as the most beneficial factor concerned in the healing processes. Billroth stated, in 1881, that rest and protection were essential for the proper repair of all coapted tissue(1); and a little over 100 years ago, Weir Mitchell, distinguished in the fields of medicine, pharmacology and poetry, advocated a rigid program of rest(2), which has been adhered to through the years. Because great men like these have left an indelible imprint on the therapeutic philosophy of the profession, we have followed consistently what now seems to be a questionable empiric program.

PHYSIOLOGY

Let us review certain physiological processes. In healing, by primary intention, the adjacent layers become glued to one another by a thin layer of coagulum. The damaged cells in the incision give off a tissue extract which calls forth a fibroblastic response; that is, connective tissue cells begin to divide by mitosis and fibroblasts grow along the fibrin trabeculae. (The latter are gradually absorbed.) The fibroblasts then meet with those of the other side to form collagen fibrils and produce a permanent union. Meantime, epithelial cells have divided and cover the surface(3). Howes, Sooy and Harvey, in 1939, measured the progress of fibroplasia and tested the tensile strength of wounds. They found a lag period of 4 to 5 days which occurs approximately after the first 12 hours of wound healing(4).

This retardation period may be shortened by various types of local irritants(5). Newberger, in 1943, demonstrated that exercise rather than immobilization expedited the healing of wounds in rats and that shortening the lag period resulted in the acquisition of tensile strength in unrestricted animals(6). From these experiments, it would be rational to conclude that the effect of rest on the wound is to inhibit healing—or conversely, the effect of activity is to shorten it.

Aside from these significant local phenomena, there are numerous and possibly more important general physiological effects related to early mobilization:

(a) The volume of tidal air and oxygen tension in the alveolar spaces is increased, thereby producing oxygen saturation of arterial blood. This in turn increases the depth and rate of respiration and, secondly, increases arterial-venous flow(7). Clotting is thus prevented, and the incidence of pulmonary emboli and infarction should be decreased(8).

(b) The circulation time of the entire body is accelerated, thus diminishing the possibility of thrombi in the dependent venous system(9).

(c) Anesthesia of any type predisposes to respiratory infection; this tendency is abated with vascular activity.

(d) D'Inganni of New Orleans noted that catheterizations were less frequent, bowel movements occurred normally, and vomiting on the second postoperative day dwindled from 32 per cent to 4 per cent of cases(10).

In view of these factual data, we should have less trouble in throwing off the mantle of time honored custom of the abuse of bed rest.

CLINICAL MATERIAL AND RESULTS

After he had performed his celebrated first oophorectomy in 1809, Dr. Ephraim McDowell found his patient, Mrs. Crawford, up on the 5th postoperative day, making her bed(11). Many similar experiences have been described by surgeons whose patients have inadvertently risen on the first or second day following laparotomy. Insanity, temporary delirium or just urgent need for the bed pan may have been precipitating factors. Zava, of South America, in 6,000 cases had not noted any ill effects from early postoperative rising(10); and of recent years many interested investigators such as Powers(12), Smith(13), Black(14), Rotstein(15), and Newburger(1), have claimed excellent results in their series.

At University Hospital 182 major gynecological operations were performed in a period of 18 months from July, 1944 to February, 1946. Of these, 107 were vaginal plastics of various kinds; 15 were vaginal hysterectomies, and 60 were celiotomies. These operations were performed by various attending surgeons from the resident to the chairman of the department. No standardized operative techniques or uniform suture material were used. These depended upon the operators' individual requirements. The patients' ages ranged from 20 to 78 years; the mean was about 46. As is to be expected in an urban and rural group of state-wide indigent patients, their general condition on admission was somewhat below par. About one-third of the group were ambulated on the first postoperative day and the other two-thirds on the third day.

Results were good. There were no cases of atelectasis, pneumonia, pulmonary emboli or thrombosis. Phlebothrombosis and thrombophlebitis did not occur. However, in those who got up on the third day, there were 2 instances of abdominal wound hematoma, 2 eviscerations, and 2 late postoperative hemorrhages. Both hematomas were noted before the day of rising; their cause was poor hemostasis. One case of evisceration was found on the second postoperative day; the other, noted on the tenth, occurred in a 65-year-old debilitated negress with moderately severe diabetes.

Of the 2 vaginal hemorrhages (in plastics), one occurred on the sixth day, and the other on the seventh. Small spurters were found on the vaginal cuff where the coagulum had apparently broken off. All recovered uneventfully from these accidents. No other complications were reported.

Most of this series were seen in the dispensary for a 6-weeks postoperative checkup and some for a yearly follow-up. One cystocoele recurred in the case of a previous vaginal hysterectomy. There have been no other late complications.

An earlier report from University Hospital was given by Dr. Paul Steinhart(16). He included 37 cases of early ambulation as against 17 cases of late postoperative rising. In the former group, there was 1 case of abdominal incision hematoma, 1 of acute bronchitis and 1 of phlebitis. One case of unexplained temperature elevation occurred in the late ambulation group.

ROUTINE PROCEDURE

1. All operations at University Hospital are done under spinal anesthesia except those in which there is a particular contraindication or a supplementary anesthesia is necessary.

2. Day of operation: The patient is encouraged to turn and move about frequently. Morphine is used only as needed for pain. Fluids by mouth are given as tolerated and are augmented by intravenous saline, glucose, plasma, or blood, as indicated.

3. First postoperative day: The same routine, as day of operation, except that less sedation is used and a liquid or soft diet is given. Very elderly women are urged and helped to rise on the first day.

4. Second postoperative day: The patient sits up in bed and begins a regular diet if it is tolerated.

5. Third postoperative day: The patient leaves her bed and sits in a chair.

6. Fourth postoperative day: She is asked to walk at frequent intervals.

7. Sixth day: Clips are removed (if used).

8. Seventh and eighth days: Skin sutures are removed.

9. Tight binders and constricting adhesive dressings are not advised as they inhibit the patient's movements and predispose to postoperative distention and an elevated diaphragm.

10. Patients are usually dismissed on the tenth day. At this time they leave feeling well and strong and able to resume their previous place in the home without the usual period of invalidism.

CONTRAINDICATIONS

An impression should not be gained that this type of management is a "cure all" for operative sequelae. It is not. In fact, there are a number of contraindications such as extreme debilitation, anemia (acute or chronic), peritonitis and large intraperitoneal abscess cavities.

CONCLUSIONS

1. This report embraces a small series of major gynecological operations done at the University Hospital under spinal anesthesia by both the resident and attending staffs.

2. It is evident that a therapeutic system

of early postoperative rising is successful in reducing pulmonary complications and vascular accidents.

3. The eviscerations and hematomas reported are no more than usual in any such group, and they could have been almost wholly avoided by better management of coaptation of tissue layers and careful hemostasis.

4. There appear to be far fewer late postoperative sequelae such as ventral hernia or recurrent cystocoele or rectocoele.

Part II—Obstetrics

The obstetrical patients at the University Hospital in the past 18 months have been getting out of bed on the 2nd postpartum day. "The exact medical regimen of the puerperium has varied from century to century and from one social strata to another"(14). There has always been a fear of uterine prolapse, retroversion and vaginal relaxations following delivery. Our report does not deny a predisposition for the above complications in early ambulation. The type of follow-up which would be necessary for such study would have to extend over a ten to twenty year period. So it can only be observed that there seems to be no more tendency to develop relaxations and procidentias in early postpartum rising than there was before.

CLINICAL MATERIAL AND RESULTS

The cases to be reported number 482; of these, 337 were multiparae (75% gravidae III or more) and 145 primiparae. There were 198 episiotomies, 141 forceps and other obstetrical procedures. Phlebothrombosis, thrombophlebitis, and pulmonary complications were completely absent from this group. Eight cases of endometritis occurred, of which 3 were thought to be retained secundines, and 2 cases of delayed post-partum bleeding, one of which was due to subinvolution. The episiotomies all healed by primary intention except for 2 cases of skin breakdown. This is a complete list of sequelae. A comparative report of postpartum morbidities cannot be given as statistical records at University Hospital had to be ruthlessly curtailed during the war years.

ROUTINE PROCEDURE

The usual postpartum routine was followed and none of the perineal care usually given to the bed patient was omitted. The following exercises were used:

Day of Delivery—spent resting.

First day, 8 a.m.—Flex leg on the thigh 10 times, then both legs together. Flex thigh on the abdomen 10 times, then both legs together. Breathe deeply 10 times with arms at the sides. Arms are brought up at right angles and across chest 10 times. Hands are placed behind the head and the body is rocked back and forth on the bed 10 times. 3 p.m.—Repeat above exercises. Sit on edge of the bed 10 minutes.

Second day, 8 a.m.—Repeat the above exercises. Sit on the edge of the bed for 10 minutes. 3 p.m.—Repeat the exercises. Sit up in a chair 10 minutes.

Third day, 8 a.m.—Repeat the exercises. Walk around the bed.

Henceforth the patient performs ordinary activities. If there are no perineal sutures she may have bathroom privileges on the 4th day; if there are sutures, on the 8th day. The patient does not leave the hospital before the ninth day, at which time she walks out by herself with firm carriage and assured, confident step.

CONTRAINDICATIONS

Severe postpartum hemorrhage, extreme deblitation, pyelonephritis and peritonitis are the chief contraindications.

CONCLUSION

1. Proof cannot be given that early postpartum ambulation will not predispose to relaxations and procidentias. No immediate effects have been noted during a year's time.

2. Pulmonary accidents and complications due to venous stasis, phlebothrombosis and thrombophlebitis have not been reported.

3. Retained secundines and subinvolution were no higher in this group than in late ambulatory groups.

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* * *

Proceedings of the Staff of Nebraska Methodist Hospital

Omaha, Nebraska

Disseminated Sclerosis and Intestinal Obstruction Due to Postoperative Adhesions

DR. R. J. STEARNS (Clinical History): A bachelor, 53 years old, had been acutely ill for a week. He had vomited practically everything he had eaten and had had no bowel movement for five days. He had passed some gas but none for the previous days. His pulse was 140. His temperature was normal. He had some type of bowel obstruction and was quite ill. He had a constant urge for his bowels to move and insisted on getting up and trying to make them move, without success. The vomitus had a fecal odor. According to the history, some five years previously he had had some type of a spinal lesion and had difficulty in walking. He was a farmer at that time and had to give up his farming. I sent him in here to the hospital, had x-rays taken, and asked Dr. Kennedy to see him.

DR. JOHN KENNEDY (Clinical History): I saw this man about fifteen or twenty minutes before he expired. He was very sick and apparently had an intestinal obstruction. He was distended even though suction had been used. I ordered some laboratory work but the patient died shortly after I saw him.

DR. H. A. WIGTON (Clinical History): When I first saw this patient he was unable to walk without a cane but could handle himself around his bed. I had him go over to the convalescent home at the Salvation Army. He had no findings from which a diagnosis of disseminated sclerosis could be made with certainty although that is a condition that I assume he had because he had a spastic paralysis of the lower extremities, a speech defect and ataxia. He was considerably improved by rest in bed which is often the case with disseminated sclerosis. Mentally, there was nothing unusual. He had a negative Wasserman and the spinal fluid was also negative. His speech was not the speech of disseminated sclerosis but was more of a stutter. He said that he had had this speech defect since he was about seven and, when I asked him the cause of it, he said that he was kept at the County Home or something of the sort and the boys, in order to scare him, took off his pants and threatened to castrate him. He developed the stuttering at that time, so of course there was no connection between his speech and disseminating sclerosis.

DR. HOWARD HUNT (Radiological findings): The radiographs showed distension of the jejunum and ileum by gas. There was very little or no gas in the colon which would suggest that we were dealing here with an obstruction.

I would like to say just a few words about the placement of the suction tubes into the gastrointestinal tract.

The following routine has facilitated passage of the Miller-Abbott tube, in our experience. The lubricated tip of the tube is passed through the larger of the nasal passages after topical application of Pontocaine, and propelled down the esophagus while the patient swallows sips of water. The tube is halted after 60 cms. (24 inches), and gastric contents aspirated.

The patient is then turned onto the right side, and the tube is slowly advanced 15 cms. (6 inches) to not over 25 cms. (10 inches), which should bring the tip to the pylorus and into the duodenum. The tube is taped to the nose and the patient made to lie on his right side for at least one hour. Tube should not be advanced further until the tip has entered the duodenum as proven by aspiration of bile-tinged alkaline fluid or observation by fluoroscope or abdominal radiograph. Too rapid introduction of the tube will cause it to coil within the stomach, necessitating withdrawal, manipulation and rotation of the patient until the tip of the tube presents at the pylorus. Placement of the patient in a right lateral prone position facilitates positioning of the tube. Injection of 2 to 3 cc. of mercury into the balloon and aspiration of all air may promote entry into the duodenum. Larger amounts of mercury or fluid in the balloon seem to interfere in withdrawal of the tube.

Once the tube has definitely entered the duodenum, it may be advanced at the rate of one inch every five minutes for one or two hours until the distended intestine has been entered and decompressed or the site of obstruction reached. Injection of about 15 to 40 cc. of barium through the open lumen of the tube into the bowel may, in special cases, assist in determining the level of the tip of the tube and disclosing the nature of any persisting obstruction. It is most important that no barium or any feeding be injected into the special balloon lumen since over distention of the balloon may seriously injure the intestinal wall, necessitating immediate operation.

DR. JOHN R. SCHENKEN (Postmortem findings): The postmortem examination was performed shortly after death and the only external mark of importance was a well healed 10 cm. McBurney incision. In the abdomen there was a mechanical obstruction of the intestines at a point approximately 18 cm. from the ileo-cecal valve. The loops of intestine in this region were all adhered firmly one to another by fibrous adhesions and at the point of obstruction the entire diameter of the area was about 1.5 to 2.0 cm. The loops proximal to the obstruction measured 5.0 cm. in diameter. The bowel was also discolored proximal to the obstruction. Quantities of liquid material in the lumen and superficial ulceration of the mucous membranes was present. The appendix was absent. There was a small tumor mass in the submucosa of the duodenum near the ampulla of Vater. It was more evident by palpation than by visual examination. Microscopically it proved to be an accessory pancreas.

Serial sections of the brain were made after fixation and they showed typical findings of disseminated sclerosis. Bluish gray areas which were firmer than normal white matter were discovered in the white matter of the brain from the frontal to the occipital lobes. They were located in both hemispheres almost exclusively adjacent to the lateral ventricles. These areas formed an almost uninterrupted zone of sclerosis from the beginning to the end of the lateral ventricles. In cross-section they varied from a few millimeters to 2.0 cm. through the greatest diameter. Microscopically, the areas showed demyelinization. The older lesions also showed considerable gliosis throughout the lesion whereas the younger areas showed the gliosis most marked at the periphery.

The complicated pathological picture has to be discussed from the standpoint of the intestinal obstruction and from that of disseminated sclerosis.

Some years ago hernia was the most common cause of mechanical obstruction. From surveys made in various hospitals during the last twenty-five years, adhesions are more predominant than hernias as the cause of mechanical intestinal obstruction. In this case we have adhesions as the result of an appendectomy which was performed twenty-five years ago.

The pathologic changes which occur in a loop of intestine which is strangulated are based on alterations in the blood supply. At first the veins are obstructed because their walls are easily collapsed and their intraluminal pressure is not high. This results in severe passive congestion, edema and extravasation of blood. A "passive" infarction actually results. As these changes become greater the increased tissue pressure and the adhesions (hernial ring, etc.) are sufficient to compress the arteries, and the infarction is complete. A large quantity of fluid is poured into the loops of intestine above the obstruction. This fluid cannot be reabsorbed because it cannot reach the colon. Vomiting results and is the cause of marked loss of electrolytes. Their restoration to the circulation cannot be overemphasized as part of the therapy.

There is always an associated toxemia in intestinal obstruction. Its explanation does not seem difficult when gangrene of a loop of intestine is present. It may be severe, however, in cases where only dilation of the loops above the point of obstruction has occurred with only a minimal degree of edema, congestion, or hemorrhage.

For the best explanation of some of the pathologic physiology in these cases we turn to the animal experiments of Dragstedt, although the information obtained in these experiments on dogs is not necessarily applicable to human beings. It was proved that dogs can survive a complete obstruction by giving them intravenous sodium chloride and that they could live for several weeks with complete obstruction of the small intestine. A human being could not possibly survive under the same circumstances, but the experiment does underline the need for restoration of electrolytes in intestinal obstruction. Dragstedt also made a great contribution in showing that a dilated loop would absorb toxins which an undilated loop of intestine would not. He used a dog with an isolated segment of intestine as the experimental animal. Botulinus toxin was not absorbed from the undisturbed loop but readily absorbed from the distended intestinal wall. Evidently the distension in some way alters the selectivity of the absorptive mechanism of the mucous membrane.

So far as the disseminated sclerosis is concerned, we know very little of its etiology or its treatment. Periodic exacerbations and regression are characteristic of the disease but there is no adequate explanation of this phenomenon.

THE NATIONAL FOUNDATION'S STORY OF SERVICE FOR 1946

The National Foundation for Infantile Paralysis is waging an all-out — a total — offensive against poliomyelitis. The significance of this total warfare against a disease must not be minimized, because it is in this respect that the National Foundation's program is unique in the field of the voluntary health movement. Through research it is dedicated to the ultimate eradication of poliomyelitis. Through professional education it is training more skillful hands to treat those who have been stricken. Through medical care — the responsibility of the Chapters of the National Foundation—it is endeavoring to provide the best available care and treatment for every patient irrespective of age, race, creed or color. Through epidemic aid, it is supplementing the exhausted financial resources of stricken areas and at the same time serving as a mobilization point in enabling all America to render help wherever needed.

The National Foundation's research program is the largest scientific program in the world supported by people in the mass. Since 1938 through the voluntary generosity of the American people, more than seventeen million dollars have been allocated for epidemic aid and to laboratories, medical schools, health departments, and educational training centers in furthering the fight against infantile paralysis. In the course of the last fiscal year, seven and one-half million dollars—the largest sum ever authorized by the National Foundation and three million dollars in excess of the preceding year —was appropriated in the following manner:

$1,259,000 to the study of virus and the method of its transmission.

$2,612,000 to train specialists in the control, study and treatment of the disease.

$3,102,584 to the study of epidemics and public health.

$599,673 to the study of after-effects.

Through arduous, painstaking, labor in the laboratories will be found the answer to the disease which quantitatively does not constitute the most serious threat to our national health and well-being, but which qualitatively leaves in its wake each year a residue of life-long cripples. Since most of those stricken are children, the problem confronting us each year is extremely long-term in nature. While research will persevere until the virus of polio is finally conquered, the answers to other related virus diseases and crippling conditions may well be unearthed in the search.

It may well be that in the course of searching and researching for the answer to polio, the mysteries still surrounding other virus conditions such as measles, influenza and even the common cold may be solved.

(NOTE: The obliteration of Japanese B encephalitis which threatened the lifelines of our Army and Navy in the Pacific theater during World War II was made possible through grants made by the National Foundation).

The most visible progress has been made in the study and treatment of after-effects, and achievements in this field have already benefited persons suffering from spastic paralysis, cerebral palsy, and victims of industrial accidents. Those of us who have observed the terrible deformities caused by the tragic epidemic of 1916 can be grateful for the work of our scientists in reducing crippling distortions to a minimum.

Just as the Foundation's virus studies transcend investigations of the polio virus, so too does its specialist training program go far beyond simply providing the nation with technicians capable of treating patients with polio. Through a vast and fast-growing educational training program, the country is being furnished with more orthopedic surgeons, more pediatricians, more doctors of physical medicine, more physical therapists, more orthopedists and public health nurses, more medical social workers, more health educators, more county health officers, more sanitary engineers, and more medical librarians.

In 1938 there were but forty trained virologists in our country. It is true that only ten additional have been trained through the efforts of the National Foundation, but proportionately this twenty-five percent increase is significant. Now that men have returned from war duties all over the world this program is expanding, as are all fields of medical and scientific education.

This summer and autumn our country witnessed the second worst epidemic of infantile paralysis in our history, yet we can safely say with pride and satisfaction that every patient received the best available medical care. The four-milion dollar reserve fund set aside by the Foundation's Board of Trustees has almost been wiped out by the demands of the epidemic. Sinc January 1 to October 24, $3,837,062 of that reserve has gone to every area where local funds and resources were depleted. From all indications, the total reserve will have been exhausted long before the first of January, 1947. This fund, made up of part of the dimes and dollars of all America, must be replenished.

The goal of the Chapter program serving the nation's 3,070 counties is to give every infantile paralysis patient a fighting chance to become a contributing member of society by providing the best medical care and treatment available.

The local aspects of this care—helping the child across the street or the youngster on the other side of the railroad tracks—has been the bulwark on which the National Foundation has grown in a few short years into America's second greatest people's philanthropy, second only to the American National Red Cross. Chapters across the nation are today carrying the full burden of costs for current cases, seeking out old cases which can benefit from advances made in reconstructive surgery and physical therapy, and are cooperating with local public health and medical personnel in providing improved facilities for the care of all patients.

The Chapters are carrying the burden of hospitalization, of medical and surgical fees, of nursing and physical therapy services, and of transportation. They are providing scholarships for local personnel, underwriting the cost of refresher courses for trained professional workers, and in many cases subsidizing professional salaries in hospitals and health departments in order to assure the best care during hospitalization and field follow up services. It is well to remember too that the facilities which Chapters are equipping and staffing today for the care of infantile paralysis patients will serve patients suffering from many other conditions.

The philosophy of financial assistance which motivates volunteers conducting our Chapters' business is prerequisite to the growth and prestige of Chapters everywhere. The National Foundation is not a charity; it is, rather, a trust in which every American has a share. No patient or patient's family need submit to a means test or be embarrassed by cumbersome investigative procedures in order to receive financial aid from Chapters. When polio is serious, it is the most expensive of all ills to treat, and in our great country there are but few who could manage the costs without seriously impairing their standard of living. We do not feel that any American family stricken with this disease need mort-

(Continued on page xxxiv)

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

THE DATES OF THE ANNUAL SESSIONS WERE CHANGED TO APRIL 28, 29, 30, AND MAY 1, 1947

REFRESHER COURSE TO BE GIVEN AT UNIVERSITY OF NEBRASKA IN FEBRUARY

A refresher training course for physicians in the State of Nebraska will be given at the University of Nebraska College of Medicine in Omaha, February 17 to 23, 1947, inclusive. A previous refresher course was enthusiastically received by physicians from the State of Nebraska and elsewhere who felt that the round table discussions, clinical demonstrations and case presentations were a valuable asset. The new course is designed to help the practicing physician keep abreast of recent advances in medicine, surgery, and the various specialties.

Course work will be limited to six members so that individual clinical demonstrations and bedside teaching can be most effective. Applications for refresher training should be sent to Dr. W. B. Moody, Chairman, Refresher Course Committee, University of Nebraska College of Medicine, 42nd and Dewey Avenue, Omaha 5, Nebraska. All applications should be received before February 1, 1947, so that suitable arrangements can be made.

The course extends over a one-week period and the fee is $15.00. Accommodations for meals and board for those who desire these services may be arranged at the University for a nominal charge.

NATIONAL CONFERENCE ON MEDICAL SERVICE

The 20th Annual Meeting of the National Conference on Medical Service will be held at the Palmer House, Chicago, Illinois, on February 9. Registration will commence at 9:00 a.m. and the program will include discussions in the fields of national affairs, economics and medical education. All physicians are invited to attend. There is no registration fee.

The Chicago Medical Society will hold its Annual Clinical Conference at the Palmer House, Chicago, Illinois, March 4th, 5th, 6th and 7th, 1947. Outstanding specialists from all sections of the country will discuss subjects of major interest. All physicians are invited to attend this conference.

Urology Award—The American Urological Association offers an annual award "not to exceed $500" for an essay (or essays) on the result of some clinical or laboratory research in urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee. Essays must be in his hands before May 1, 1947.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Statler, Buffalo, New York, June 30-July 3, 1947.

THE MEDICAL CARE PROGRAM FOR RECIPIENTS OF ASSISTANCE IN NEBRASKA

The General Medical Advisory Committee to the State Department of Assistance and Child Welfare, following the course set by the Council and the House of Delegates of the Nebraska State Medical Association, when it approved the Aid for Dependent Children Medical Care Program, presents herewith the plan of operation of the medical care program for recipients of old age assistance and blind assistance.

It is felt by the committee that this plan serves the best interests of the physicians of the state for the following reasons:

1. It preserves the patient-doctor relationship without the intervention of a governmental agency.

2. It provides for normal fees to the doctor for services rendered and lets the doctor be the judge of that fee.

3. It maintains the morale of the assistance recipient and patient, in that he may choose his own physician, contract for his medical care and be responsible for the payment for that care.

The Nebraska Legislature, in special session during August, 1946, passed legislation which became effective August 31, 1946, and which vitally affects the health and well-being of recipients of old age assistance and blind assistance in Nebraska. This legislation provided for a maximum assistance payment of $50.00 a month instead of the $40.00 per month maximum which had been in effect previously. The legislation also provided that medical, surgical and hospitalization needs could be paid in excess of the $50.00 per month maximum. The 1945 Legislature had already provided adequately for the needs of dependent children.

The Nebraska Department of Assistance and Child Welfare, which supervises the administration of the assistance program, has therefore been able to establish standards, rules and regulations for medical and related services to carry out the purposes of this legislation.

The Federal Social Security Act provides that Federal funds may be used to match State funds for assistance only when the payment is made to the recipient in the form of an unrestricted money payment, based upon need. To take advantage as far as possible of matching Federal funds, the plan developed provides that the recipient shall receive amounts in his monthly assistance payment for the medical care he has received. The recipient, upon receipt of his monthly assistance payment is responsible for the payment of his medical bill.

To determine his medical need, however, the recipient must receive from the physician of his choice, an itemized monthly statement of services rendered, showing the date of service, type of service—that is office or home call—x-ray, number of calls, etc., and to whom the service was given. These statements must be taken or sent by the recipient to the County Department of Assistance and Child Welfare within 30 days if possible, but not more than 60 days from the date service is rendered and are evidence to the agency of the recipient's medical need. These amounts may then be included in the assistance payment, with due consideration being given to matchable funds from the Federal government.

In old age assistance and blind assistance, the Federal government matches State funds for the payments of assistance up to $45.00 a month. In aid to dependent children, the Federal government matches State funds up to $24.00 a month for the first child and $15.00 a month for each additional eligible child in the family. Thus, depending upon the other needs of the individual or family, such as shelter, food, clothing, fuel, etc., medical needs may be included in the assistance payment either in a lump sum payment or prorated in the monthly payment over a period of months. It is absolutely essential that Federal funds be used to the best possible advantage since the funds which support the assistance program are raised by State and Federal taxes and thus are the concern of all.

It is anticipated and expected that the fees charged recipients of assistance conform to those for other persons in the community for similar services.

Hospitalization, drugs and medical supplies, and nursing services, may be provided the recipient upon the prescription or recommendation of his physician. The payment for these services is made in the same way as the payment for services to the physician. For persons receiving care in nursing homes or who find it necessary to enter nursing homes, a report of the individual's own physician or of a physician selected by the county agency, shall be used to determine the amount which will be paid for that patient's care in the home. This should insure more consideration on the part of the nursing home operator as to the type of patient which she is able to accept in the home and will enable the agency to evaluate the care which is being given the patient in the home. These examinations, as well as those to determine the incapacity of the parent of a dependent child, will be paid from administrative funds, and payment will be made by the county department to the physician.

Medical bills left unpaid upon the death of a recipient of assistance will be paid the vendor by the agency providing the amount for medical care had not already been included in the assistance payment even though the bill was not paid by the recipient. Medical bills of deceased recipients should be submitted to the County Department of Assistance and Child Welfare as soon as possible after the death of the recipient.

This advisory committee is not optimistic enough to believe that the physicians of the state will collect 100 per cent of the fees from patients who receive assistance, but it does believe that there will be no greater incidence of loss than there exists in any private practice. It is only reasonable to expect the physician will exert the same degree of effort to collect fees from patients receiving assistance as he expends in the collection of fees from any other patients.

It is urged that the plan be given a fair trial. Complaints and criticisms will be welcomed and carefully considered.

HAROLD S. MORGAN, M.D., Chairman.

NEWS and VIEWS

OMAHA MID-WEST CLINICAL SOCIETY ELECTS 1947 OFFICERS

At its annual business meeting, December 3, 1946, this society elected the following officers for 1947: President-elect, Roy W. Fouts; Secretary-Director Clinics, John M. Thomas; Assistant Secretary-Director of Clinics, Don J. Wilson; Treasurer, Louis E. Moon. Other members of the Executive Committee: Drs. R. D. Schrock, J. D. McCarthy, L. Lowell Dunn, and J. R. Kleyla. Sectional Chairmen: Basic Sciences, John R. Schenken; Dermatology, Z. N. Korth; Eye, Ear, Nose and Throat, W. H. Morrison; Genito-urinary, W. F. Novak; Gynecology and Obstetrics, Ralph Luikart; Medicine, Lynn T. Hall, and Chester Thompson, Assistant; Neurology, Paul T. Cash; Orthopedic Surgery, W. L. Sucha; Radiology, H. B. Hunt; Surgery, R. Russell Best, and R. T. Mauer, Assistant. Dr. C. M. Wilhelmj, who was president-elect, becomes President.

According to an Associated Press dispatch dated December 11, a cabinet post for government health activities was proposed by Representative Miller (R., Neb.), who said the agencies in that field "should all be under one umbrella."

In a speech prepared for a meeting of the American Pharmaceutical Manufacturers' association, Miller also predicted that "medical legislation will be conservative."

"Legislation designed to nationalize or socialize medicine or industry will be rejected," he said. "There will be a strong tendency to place responsibility and power for handling of many problems back with the states.

The 43rd annual Congress of Medical Education and Licensure will be held in Chicago, February 10 and 11, 1947.

The Lasker Awards, first of a new series of annual honors for public health service, comparable to the Pulitzer Prizes, were presented by Dr. George Baehr, president, New York Academy of Medicine, to the medical experts named below. The presentation took place at the 74th annual meeting of the American Public Health Association in Cleveland, Ohio. Donated to the Association by Albert and Mary Lasker, the awards consist of a gold statuette of Winged Victory and $1,000. Individuals honored are:

Dr. Carl F. Cori, Washington University School of Medicine, for discovering how insulin permits the body of a diabetic to burn sugar; the late Dr. Karl Landsteiner and Doctors Philip Levine, of Plainfield, N. J., and Alexander S. Wiener, of New York City, in a joint award as co-discoverers of the vital RH factor in blood; Dr. Fred L. Soper, Rockefeller Foundation, for achieving absolute control of yellow fever and malaria; Dr. John F. Mahoney, U. S. Public Health Service, for a new penicillin treatment of syphilis; and Dr. Alfred N. Richards, for outstanding wartime medical research.

REFRESHER COURSES FOR PHYSICIANS AT U. N. COLLEGE OF MEDICINE

A group of eleven practicing physicians attended the first organized refresher course at the University of Nebraska College of Medicine in December. Clinics, bedside demonstrations and lectures comprised the refresher work. Chief emphasis was placed on recent developments in medicine and surgery, with a review of the newer drugs and diagnostic techniques. The refresher course is the first of a series that have been planned at the College of Medicine. The course is aimed to help the busy practitioner of medicine keep abreast of the new developments and research.

Graduates have come from the following cities to attend the course, Eldorado, Kansas; Bloomfield, Iowa; Muskogee, Oklahoma; Atlantic, Iowa; Fremont, Murray, Burwell, and Omaha, Nebraska. Doctors from out of the city are provided suitable quarters at the University Hospital and meals are served in the staff dining room.

The group was limited in number so as to permit more individual instruction. Other courses will be offered in the future for those who could not be accommodated at this time.

The Board of Directors of The Eye-Bank for Sight Restoration, Inc., recently announced the following scholarship and fellowship awards and appointments:

Dr. Herbert M. Katzin of New York has been put in charge of the Laboratory for Ophthalmic Research of The Eye-Bank for Sight Restoration, Inc.

Dr. Frank Constantine has been granted a Fellowship to pursue studies in relation to corneal vascularization.

Dr. Arnold Forest of the Army Institute of Pathology, Washington, D. C., has been granted a Fellowship for training in Ophthalmic Pathology with special emphasis on corneal pathology.

Dr. Milo H. Fritz of New York has been granted a Fellowship to continue studies in vitreous replacement and vitreous transplants.

A. M. A. PLANS FOR CENTENNIAL SESSION AT ATLANTIC CITY

The American Medical Association will celebrate its centennial in Atlantic City, June 9 to 13, 1947.

Arrangements call for "making it one of the greatest and most interesting medical assemblages ever convened," according to an editorial in The Journal.

"Each of the scientific sections of the American Medical Association has been authorized to secure a distinguished speaker from abroad and to include also in its program a review of medical progress in the specialty concerned for the hundred year period," states the editorial. "Each of the general scientific meetings will provide for the presentation of three papers constituting reviews of the advancement in the fields discussed, followed by panel discussions on such subjects as the modern management of heart disease, emergency surgery and antibiotics in therapy."

Another highlight of the centennial session is "the utilization of Sunday, June 8, as a special public health day. A religious program is being arranged with representatives of the leading faiths of our country. This will be held in the great auditorium in convention hall and will no doubt be broadcast on one of the national chains. At the same time congregations assembled for religious services elsewhere throughout the nation will be given messages regarding the advancement of medical science and the improvement in the public health that have occurred during the hundred year period.

"The division of motion pictures in the headquarters office of the American Medical Association is at present engaged in the development of two motion pictures dealing with the lives of the distinguished American physicians of the period concerned and with the evolution of motion pictures in medical teaching. The first public showings are contemplated for Monday evening, June 9. . . ."

The President's Reception will be among some of the many other features planned for the centennial celebration. The Journal editorial states that "distinguished foreign guests, as well as the officers of the American Medical Association, will on that occasion be honored at the reception, and music will be provided by one of the leading orchestras of the nation."

Dr. Morris Fishbein, editor of The Journal, is writing a history of the American Medical Association which is appearing serially in The Journal. The complete work will be published in book form and will be available for the centennial celebration.

WEST CENTRAL DIABETES ASSOCIATION

The West Central Diabetes Association, Omaha, was incorporated in November; a non-profit corporation, to stimulate interest among physicians in this area in problems relating to diabetes. Incorporators are Dr. Elliott Joslin, Boston; Drs. Frank M. Conlin and M. Margolin, Omaha; Dr. Floyd Rogers, Lincoln; Dr. Aldis Johnson, Council Bluffs.

The objectives of this association are:

1. To stimulate interest among physicians of this region in problems relating to diabetes by means of scientific meetings, publication of scientific papers, fostering of research, conducting surveys, and by such other means as may be found utilizable for that purpose.

2. To educate the laity as to early recognition and proper control of diabetes by means of lay meetings, clubs and classes, by sponsoring camps for diabetic children, by publication of a lay journal for distribution to all interested in this disease, and by such other means as may be regarded expedient for this purpose.

3. To provide adequate care for all diabetics by encouraging proper hospital, laboratory, and dispensary facilities, and by providing help in obtaining hospital services, food, and necessary medication and articles for needy diabetics.

4. To procure, maintain, and administer such fund or funds as are necessary for the carrying out of the above objects.

5. To enlist the active cooperation of all interested groups and individuals in the promotion of these objects.

6. To cooperate with the American Diabetes Association in pursuit of fulfillment of the purpose of that association and with all other groups and organizations in the furtherance of such of their objectives as are related to the field of diabetes and allied conditions.

MEMBERSHIP

The active membership of the Association shall consist of four classes:

1. Contributing: All individuals who contribute $25 or more per year to the funds of the Association.

2. Associate: All interested individuals desiring membership and paying $5.00 per year.

3. Professional: Properly qualified physicians, nurses, laboratory technicians, dietitians, and others of allied professional fields. The dues for such members shall be $2.00 per year.

4. General: Any layman interested in diabetes wishing to become a member. Annual dues for this class of membership shall be $1.00.

Any person meeting one of the above qualifications may be elected to active membership by a majority vote of the Council. In addition, honorary membership may be conferred by the Council on any individual who has rendered distinguished services in fields related to diabetes.

HOSPITAL NEWS

An item in The Beatrice Sun states that articles of incorporation have been filed to make the Beatrice Mennonite Deaconess Home and Hospital a non-profit corporation, under the supervision of the church.

The hospital was organized in 1910 by the First Mennonite church, west of Beatrice. Since that time it has been owned directly, just as the church building is owned, by the church. The hospital building was completed in 1911.

After the incorporation is approved by the state, for business operations the hospital will be independent, although it will remain under supervision of the church, according to Richard Wiebe, hospital manager.

In Lincoln Bryan Memorial hospital's board of trustees gave its final approval in November to a hospital addition upon which, it was hoped, construction might begin by spring and one wing could be completed during the summer or early autumn.

The board, meeting in its annual session, heard reports which pointed out that although the hospital is a 100-bed institution, the daily average in October alone was 116. Additional beds have been placed in wards, and rooms for single patients have been transformed, Dr. E. C. McDade, Bryan superintendent said.

Tentative plans now call for a 50-foot west wing to be added to the south end of the hospital, creating rooms for housing 30 more beds, Dr. McDade explained, and in the future a similar wing will be added to the eastern shoulder of the plant, creating 20 more rooms as well as additional offices and supply rooms.

As a final expansion step, the board felt that under its five-year construction plan, additional floors may be added to the original wing structures.

Dr. E. W. Rowe, who is retiring as chief of staff at Bryan Memorial hospital after 20 years of service, was presented the Bryan staff key for meritorious service by Dr. Fred W. Webster at a turkey dinner participated in by staff officers, doctors and heads of departments. He accepted the honor with a brief expression of appreciation.

The following officers and heads of departments were elected:
E. E. Angle, chairman.
G. H. Miske, vice chairman.
L. E. Finney, secretary.
E. B. Brooks, treasurer.
E. B. Reed, internal medicine.
H. A. Taylor, general medicine.
P. M. Bancroft, pediatrics.
R. E. Garlinghouse, obstetrics.
S. O. Reese, surgery.
M. A. Wood, ophthalmology and otolaryngology.

E. W. Rowe, radiology.
J. E. M. Thomson, bone and joint surgery.
E. E. Angle, urology.
R. J. Stein, neuropsychiatry.
F. H. Tanner, clinical and pathological laboratory.
F. W. Webster, dental surgery.

HEBRON—As of December 1, contributions for the Thayer county Memorial hospital have reached $34,290.29 or $709.71 short of the $35,000 goal, The Journal-Register reports.

NORTH PLATTE—Members of the St. Mary hospital staff elected officers for the coming year at the annual meeting held in the hospital building Tuesday, December 3.

Dr. J. B. Redfield was elected president and Dr. E. J. Shaughnessy was named vice president. Other officers elected were Dr. A. E. Reeves, secretary-treasurer and Dr. Glenn F. Waltemath, member of the executive committee.

Dr. T. E. Dent, Dr. C. F. Heider and Dr. O. C. Kreymborg presented an interesting case to the group.

The Sisters of St. Mary hospital prepared and served the banquet preceding the business meeting.

The fund for the Morrill County Veterans Memorial hospital at Bridgeport was virtually at the $33,000 mark in November, well past the minimum needed and was still growing, the Bridgeport News-Blade reported.

Plans are being made to incorporate the memorial hospital and to apply for a grant from the government under the recently approved small hospitals aid provisions. A grant of from $10,000 to $15,000 is expected to be needed from the government.

FEDERAL SECURITY AGENCY

The Hospital Survey and Construction Act, authorizing a nationwide program of hospital construction, requires that standards of construction and equipment be established by the Surgeon General, U. S. Public Health Service. These standards will apply to all projects to be built with federal assistance under this legislation.

Such standards have recently been drafted by the Office of Technical Services, Division of Hospital Facilities, U. S. Public Health Service, of which Marshall Shaffer is chief. The Committee on Hospitalization and Public Health of the American Institute of Architects approved the standards and submitted them to a special technical committee on architectural standards appointed by the Federal Hospital Council.

After review and approval by this committee, the standards were accepted by the Federal Hospital Council. These standards will be incorporated in the rules and regulations of the Hospital Facilities Division. The Surgeon General and the Federal Security Administrator will have to approve the rules and regulations before they are published and made available to all persons interested in this program.

The standards established constitute the minimum requirements considered necessary to insure properly planned and well constructed hospitals and health centers. But since they are minimum requirements, it is pointed out that they should form a basis only for the development of higher standards.

There has been no attempt, in establishing these standards, to make them coincide with all of the various state and local codes and requirements. However, strict compliance with all applicable state and local regulations is required. Likewise, compliance is required with minimum standards of construction and equipment promulgated by the state agency administering this program, where such standards are higher than those established by the Surgeon General.

NEBRASKA STATE DEPARTMENT OF HEALTH SUMMARY OF TWELVE-MONTH PERIOD

November 15, 1945 - November 15, 1946

DIVISION OF TUBERCULOSIS SURVEY

Total X-rays (4x5)	41,263

Taken in 73 different locations classified as follows:

Community Surveys (General public and high schools)	47
State Institutions	10
Colleges and Universities	7
Other Institutions	4
Industrial Plants	5
Total	73

Results—4x5 findings:

Group A cases Characteristic X-ray findings of tuberculosis, past or present. Referred to private physicians for diagnosis and treatment. This group contains those who are sources of spread.	208 or 0.5%
Group B cases Findings on X-ray suspicious of tuberculosis. Need study over a period of time by their physician to determine activity of disease. This is the group where prevention can be accomplished.	470 or 1.1%
Group C cases This group contains all cases of non-tuberculous pathology. Many of these are equally as important to find as tuberculosis cases—examples are: heart disease, cancer, and orthopedic defects.	753 or 1.8%
Cases under treatment in hospitals or under care of private physician, found by our tuberculosis survey in the past twelve months.	291

Unfilled requests for the services of the Mobile X-ray Unit on file:

From	57 counties
Made by	144 persons

E. A. ROGERS, M.D., Director,
Division of Tuberculosis Survey,
Nebraska State Department of Health,
Lincoln, Nebraska.

SEAL OF ACCEPTANCE
AMA
BY COUNCIL ON MEDICAL SERVICE AMERICAN MEDICAL ASSOCIATION

THE "BLUE SHIELD PLAN"
FOR MEDICAL CARE

NEBRASKA MEDICAL SERVICE

The Seal of Acceptance of the Council on Medical Service of the American Medical Association has been awarded to the Nebraska Medical Service. The seal containing the "Blue Shield" symbol is only awarded to prepayment medical care plans which meet the high standards set by the Council on Medical Service of the American Medical Association. This new symbol, the "Blue Shield," will be the trade mark of the medical care plans like the Blue Cross is the symbol of the prepayment hospital care plans.

The Nebraska Medical Service, the Blue Shield Plan for prepayment medical care in Nebraska, is now starting on its third year of successful service to the people of Nebraska. Twenty thousand people have been enrolled in the first two years of operation of the plan. Broad and liberal benefits have been provided in the certificate of Nebraska Medical Service. Benefits have been increased in more than sixty of the items listed in the Schedule of Benefits. "In hospital medical care" has been added as a benefit at a slight increase in the assessment.

A satisfactory surplus is being accumulated to guarantee the financial stability of the plan. In the near future, a modern public relations and publicity campaign will be launched to rapidly increase the enrollment in Nebraska Medical Service. The Nebraska Medical Service merits your continued support and approval, and needs your help to extend more and better medical care to the people of Nebraska. It will provide them with an economical method to budget the costs of high quality health care.

ARTHUR J. OFFERMAN, M. D.,
President, Nebraska Medical Service.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

CASH RECEIPTS AND DISBURSEMENTS

November 30, 1946

Cash on hand November 1, 1946		$46,089.25
Receipts:		
From dues	$14,881.25	
From enrollment fees	822.00	
Taxes deducted from salaries	4.30	15,707.55
		$61,796.80
Disbursements:		
Administrative expense	2,211.66	
Claims, paid	6,443.50	
Salary, Executive Director	150.00	
Hospital records	4.00	
Secretary's fee	25.00	
Advertising	213.80	
Printing and stationery	304.04	
Attorney	50.00	
Refunds	74.25	
Exchange	1.00	
Home office travel and expense	4.00	
Collection expense	5.88	
Taxes paid	2.00	
Dues	10.00	
Medical Adviser	50.00	
U. S. Bonds, Series G	10,000.00	
Medical dictionary	2.50	19,551.63
Cash on hand, November 30, 1946		$42,245.17
Bank Balance, November 30, 1946:		
Packers National Bank, Omaha		$41,255.92
First National Bank, Omaha		989.25
		$42,245.17

NEBRASKA MEDICAL SERVICE BALANCE SHEET

November 30, 1946

Assets:			
Cash in bank		$42,245.17	
Premiums in process of collection		7,804.28	
U. S. Bonds (cost plus accrued interest)		25,035.55	75,085.00
Liabilities:			
Accounts payable, Blue Cross		2,395.13	
Accounts payable, monthly invoices		537.67	
Accrued payroll taxes		11.60	
Claims payable		2,700.00	
Accrued audit expense		275.00	
Unearned premiums		22,887.04	
		$28,806.44	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	26,828.56		
		46,278.56	
			$75,085.00

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSES

November 30, 1946

	November 1946	11 Months to Date
Income:		
From dues	$12,484.25	$88,115.75
From enrollment fees	822.00	6,268.00
	$13,306.25	$94,383.75
Expenses:		
Claims	7,543.50	46,016.00
Salary, Executive Director	150.00	1,650.00
Legal	50.00	520.00
Auditing	25.00	275.00
Advertising	9.42	1,214.96
Printing	245.15	2,916.78
Stationery	-------	105.19
Insurance	-------	162.92
Administrative expense	2,395.13	16,888.63
Home office travel and expense	201.00	752.65
Professional fees	25.00	275.00
Collection expense	5.88	22.53
Taxes and licenses	77.60	128.60
Miscellaneous	13.00	69.65
Postage	-------	183.45
Dues	10.00	133.00
Medical Adviser	50.00	490.00
Furniture and fixtures	-------	22.00
	$10,800.68	$71,826.36
Net Gain	$ 2,505.57	$22,557.39

MEMBERSHIP SUMMARY—NOVEMBER, 1946

1. Membership, November 1, 1946	8,284	11,733	20,017
Additions	585	929	1,514
Cancellations	250	383	633
Membership, December 1, 1946	8,619	12,279	20,898
2. Number of groups now enrolled			538
3. Number of groups added during November			28
4. Members enrolled by salesmen:			
M. W. Ashton (outstate)		178	
W. F. Doherty (Omaha)		19	

S. M. Hall (outstate)	56
B. R. Lohnes (Omaha)	22
G. S. Malone (outstate)	146
C. H. Smith (Omaha)	112
Office	52
	585

OMAHA—12 groups, 176 members: Benson-Williams Drug Store; Creighton University Faculty; Dutch Cleaners; Florence Growers Exchange; Food Fair Stores; Kelly Beauty Shop; Marti Reference; Midwest Intertypers; Omaha Welding Company; St. Joseph Hospital; Snow Corporation; Will-Weld Company.

LEWELLEN—1 group, 43 members: Lewellen Township.

AINSWORTH—1 group, 4 members: Brown County Welfare Department.

MORRILL—1 group, 17 members: Evans Chevrolet Company.

CENTRAL CITY—1 group, 12 members: Central City Fire Department.

NORTH PLATTE—3 members.

NEBRASKA CITY—4 members.

HASTINGS—21 members.

FREMONT—3 members.

KEARNEY—2 members.

LINCOLN—5 groups, 119 members: Farmers Mutual Insurance Co.; Nebraska National Guard Air Unit; Veterans Hospital; Wells & Frost Shoe Company; Y. W. C. A.

GRAND ISLAND—2 groups, 20 members: Jack's Tire Service; Orin Contryman.

VALENTINE—2 groups, 100 members: Valentine Community; Valentine General Hospital.

MAXWELL—1 group, 11 members: Help-U-Club.

BEAVER CROSSING—1 group, 21 members: Beaver Crossing Community.

NEWMAN GROVE—1 group, 8 members: 4-H Club.

SUPERIOR—2 members.

SIDNEY—2 members.

BEATRICE—2 members.

OGALLALA—1 member.

ALLIANCE—1 member.

SCOTTSBLUFF—13 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT

November, 1946

Number of claims paid	167
Number of services rendered	185
Females	100
Males	67
Subscribers	65
Dependents	102

Type of Service	Number	Amt. Pd.
Anesthesia	5	$ 25.00
Appendectomies	13	1,270.00
Eye	5	30.00
Gall Bladders	2	275.00
General Surgery	9	365.00
Gynecology	14	1,130.00
Hemorrhoids	4	155.00
Herniotomies	3	300.00
Minor Surgery	23	159.00
Nose and Throat	2	100.00
Obstetrics	4	200.00
Orthopedics	14	565.00
Pathology	2	10.00
Radiation Therapy	--	--------
Tonsillectomies	42	1,520.00
Transfusions	--	--------
Urology	4	140.00
X-rays	33	293.50
Medical	6	131.00
	185	$ 6,668.50

Amount of claims in process of settlement—$2,700.00

OFFICE OF THE SURGEON GENERAL

ARMY REPORTS ON USE OF STREPTOMYCIN

The new anti-infection agent, streptomycin, which is in the same general class as penicillin, appears effective in appropriate doses against more than half the infective bacterial organisms ordinarily encountered by surgeons, according to the report to The Surgeon General's Office from the Halloran General Hospital. Clinical studies of the use of the drug throughout the army have been submitted and evaluated at Halloran.

On the other hand, it apparently has specific poisonous effects when given over an extended period, and bacteria soon become resistant to it so that it probably can be used only once with maximum effect within a limited period on the same patient.

The drug became available only late in the war and is still scarce and expensive.

Army experience with the drug is probably the most extensive to date due to the ability to compile and follow results. Outside the services because of limited opportunities to observe results in large numbers there have been varied, and sometimes quite exaggerated, reports on its value and it often is referred to popularly as a "miracle drug." From the first careful observations of its effects have been carried out by army doctors by orders of The Surgeon General, and these are being continued. The findings to date are summarized in the Army Medical Bulletin of November 1946.

The observation of the ability of bacteria to develop resistance to the drug after a few days may be of particular importance at this time. The same has been noted in respect to both the sulfa drugs and penicillin, but apparently the phenomenon is more pronounced with streptomycin. In at least one case, test tube experiments showed, there was a 100-fold increase of the resistance of an organism in ten days. Given indiscriminately, the drug may lose any value for a particular type of infection in an individual for the rest of his life. Improper use may cause variation and selection in disease agents so that streptomycin is no longer effective for the infection where it is of greatest value at the present time.

Bacteria, on the basis of certain chemical reactions, ordinarily are divided into two classes—gram positive and gram negative. The new drug, in test tube experiments, seems effective in varying concentrations, against 60 per cent gram positive and 80 per cent gram negative organisms ordinarily encountered in surgery.

Of paramount importance, is determination whether a specific microorganism is susceptible to the drug before it is administered by mouth, by injection, or direct application.

The army experience bears out previous claims that streptomycin is of especial value in clearing up infections of the urinary tract, provided that the organisms causing the infections are susceptible ones. If the treatment is not entirely effective in three days ordinarily no good results can be expected from its continuation. In gonorrheal infection which has proved resistant to both sulfadiazine and penicillin outstanding results have been obtained.

Use in army hospitals gives no support to claims that the drug is of value in infections of the prostate. The drug is not concentrated in that organ.

It was found to have very little value against bone infections, except when used in conjunction with surgery where there could be direct application.

Thus far streptomycin has not given dramatic results in peritonitis, but its continued use as an auxiliary treatment seems justified.

In various dysenteries due to susceptible bacteria considerable benefit has been noted, sometimes when the drug is given by mouth alone.

In septicemia—still provided that the organism responsible for the infection is a susceptible one—

streptomycin has proved very effective, but it is still essential that unapproachable foci of infection be removed by surgery.

The substance has little value, so far as the army experience goes, against typhoid fever and it is apparently of no use in controlling carriers of this disease.

In undulant fever there have been apparent clinical arrests of the infection from the combined use of streptomycin and sulfadiazine after each drug given alone had failed. Further study will be required, however, before any valid conclusions can be reported.

It is very effective against tuleremia, or rabbit fever, provided the specific organism responsible has been demonstrated in test tube experiments to be susceptible to the drug.

Up to date experience with only a few cases of meningitis have been reported and the results, in conjunction with other treatments, have been quite good. The Army doctors found, however, that it must be given by injection into the space between the thick membranes surrounding the brain and spinal cord and the brain or spinal cord tissue. Circulating in the blood stream, it cannot pass this barrier to reach the infecting organisms.

Excellent results have been obtained with direct application of the drug to infections of the external ear, the pleural cavities and the brain. Infections elsewhere will not reach local foci of infection in sufficient concentration to be effective.

One of the hopes of the medical profession has been that streptomycin would prove of some value against tuberculosis. The army experience neither confirms nor refutes this since a much longer series of investigations will be required before there can be any valid conclusions.

Balances against the demonstrated value of streptomycin in suitable cases are some apparently toxic effects. Some of these are probably due to impurities in the drug but others seem to be specific for the drug itself. The most serious of these is what seems to be an irreversible damage to part of the eighth cranial nerve which appears when streptomycin is given in large doses by injection for more than ten days. This means that one's sense of balance may be disturbed for a long time, with possible attacks of dizziness and nausea. This was found in two army cases. A third patient showed partial deafness, indicating that there had been a poisonous effect on the other portion of the eighth cranial nerve, which is the path of hearing. Toxic effects also were noted on the kidneys. All this demonstrated that the drug should be given only by physicians, and then only after careful consideration of the organisms involved and the safe dosage.

Conference of State Secretaries and Editors was held December 7 and 8, 1946, in the American Medical Association Building in Chicago.

The program was as follows:

Saturday, December 7—10:00 a.m.

Call to Order—R. L. Sensenich, chairman of the Board of Trustees of the American Medical Association; The American Medical Association—George F. Lull, secretary and general manager of the American Medical Association; State Medical Society Participation in Network Broadcasting—W. W. Bauer, director of the Bureau of Health Education of the American Medical Association; The State Medical Society and the State Government—Creighton Barker, secretary of the Connecticut State Medical Society; The Responsibility of the Individual Physician—James C. Sargent, Milwaukee, Wisconsin.

Saturday, December 7—2:00 p.m.

State Medical Associations and Social Security and Federal Income Taxes—Thomas V. McDavitt, American Medical Association; The County Medical Society—Mr. M. L. Meadors, director of Public Relations of the South Carolina Medical Association; The Cooperative Medical Advertising Bureau—Stanley B. Weld, editor-in-chief of the Connecticut State Medical Journal; The Medical Profession and Public Relations—Charles Swart, executive assistant, American Medical Association.

Saturday, December 7—6:30 p.m.

Dinner for members of the conference, Palmer House. Address—Hon. A. L. Miller, M. C., Fourth District, Nebraska; Commercial Exhibits — L. Fernald Foster, secretary of the Michigan State Medical Society; The Home Office of a State Medical Association—R. H. Graham, executive secretary of the Oklahoma State Medical Association; The Medical Editor Consults His Readers — Theodore Wiprud, managing editor of the Medical Annals of the District of Columbia; Our Concept of the Function of a State Medical Journal—Jonathan Forman, editor of the Ohio State Medical Journal.

Sunday, December 8—9:30 a.m.

Introduction of Governor Green—Robert S. Berghoff, president of the Illinois State Medical Society; Address—Hon. Dwight H. Green, governor of Illinois; Reports from Sessions for Secretaries and Editors—Douglas L. Cannon and Robert N. Nye. Open Forum—Presiding: Julian P. Price, secretary-editor of the South Carolina Medical Association.

Nebraska was well represented at the conference with the following in attendance. Drs. Roy Fouts, J. D. McCarthy, A. J. Offerman and Herman Jahr, all of Omaha; and Dr. R. B. Adams, and M. C. Smith of Lincoln.

PROTECT YOUR FUTURE
BUY YOUR EXTRA SAVINGS BONDS NOW

Membership Roster as of December 31, 1946

FIRST DISTRICT

WARREN Y. THOMPSON, Councilor

* Honorary Member

DOUGLAS

OMAHA—

Adams, Payson S.
527 Medical Arts
Adler, Ethel
1410 Mitchell St.,
Oakland, Calif.
Allen, John F.
912 Medical Arts
Alliband, Geo. T.
1020 Medical Arts
Allingham, H. T.
4823 So. 24th St.
Andersen, Alfred C.
430 Aquila Court
Andersen, M. C.
1120 Medical Arts
Anderson, Harley E.
1116 Medical Arts
Anderson, Leo
207 Medical Arts
Armbrust, Walter
1113 Redick Tower
Arnsten, L. L.
442 Aquila Court
Attwood, N. H.
502 Medical Arts
Baca, Don E.
Papillion, Nebr.
Bantin, Clarence F.
626 Omaha Loan & Bldg.
Bantin, E. W.
440 Aquila Court
Baptist, John
3624 No. 30th St.
Barry, M. W.
1416 Medical Arts
Bartek, Julius G.
619 Barker Bldg.
Beber, Meyer
631 Medical Arts
Beck, F. O.
Livestock Natl. Bank
Bennett, A. E.
607 Medical Arts
Best, R. Russell
527 Medical Arts
Bisgard, J. Dewey
1420 Medical Arts
Bleick, L. C.
830 City Natl. Bank
Bliss, Rodney W.
1120 Medical Arts
Block, Max
432 Brandeis Theater
Boler, Thomas
718 Barker Bldg.
Borghoff, J. A.
1319 Medical Arts
Bowers, Warren F.
Boyne, H. N.
1302 Medical Arts
Bozarth, Elton P.
4617 No. 24th St.
Bradley, Jas. D.
1607 Medical Arts
*Brandt, Emelia H.
4343 Charles St.
Brazer, John G.
Benson Medical Center
Brinkman, H. H.
6014½ Military Ave.
Brodkey, M. H.
320 Medical Arts
Brown, Alfred
1618 Medical Arts
Bucholz, Donald J.
478 Aquila Court
Burns, B. C.
421 Farm Credit Bldg.
Bushman, L. B.
627 City Natl. Bank
Callfas, W. F.
99 So. Raymond Ave.,
Pasadena, Calif.
Cameron, O. J.
1520 Medical Arts
Carnazzo, S. J.
712 Barker Bldg.
Cash, Paul T.
607 Medical Arts
Cassidy, W. A.
1020 Medical Arts
Catania, Nancy
418 Brandeis Theater
Christensen, Julius B.
1326 Medical Arts
Christlieb, J. M.
4702½ So. 24th
Clark, George
1817 Vinton St.
Clarke, Floyd S.
314 Medical Arts
*Cloyd, A. D., Sr.
4817 California St.
Cloyd A. David, Jr.
316 Medical Arts
Coakley, Leo P.
918 Medical Arts
Comine, Joseph J.
820 Medical Arts
Conlin, Frank M.
1414 Medical Arts
Connolly, Earl A.
502 Medical Arts
Cook, Lyman J.
311 Medical Arts
Courtney, J. E.
730 City Natl. Bank
Crynes, S. F.
Davis, Edwin
1436 Medical Arts
Davis, Herbert H.
1204 Medical Arts
Davis, J. Calvin
425 Aquila Court
Davis, W. W.
1007 So. 37th St.
Day, Robert F.
104 So. 39th St.
De Lanney, L. A.
721 Medical Arts
De Long, Henry L.
2415 Fort St.
Dendinger, Wm.
1035 Redick Tower
Dishong, G. W.
446 Aquila Court
Di Stefano, Carmelo
721 Medical Arts
Donelan, James P.
Guarantee Mut. Life Co.
Dow, A. G.
314 Medical Arts
Dowell, D. A.
816 Medical Arts
Downing, John E.
816 Medical Arts
Drdla, Theodore
460 Aquila Court
Drozda, Jos. P.
510 Redick Tower
Duncan, J. W.
730 City Natl. Bank
Dunn, F. Lowell
737 Medical Arts
Dwyer, J. R.
820 Medical Arts
Egan, Richard
St. Joseph's Hospital
Egan, Wm. J.
456 Aquila Court
Eggers, Harold E.
University Hospital
*Ellis, Paul H.
4617 No. 24th St.
Elston, Harry R.
1618 Medical Arts
Endres, Gregory L.
5811 Military Ave.
Erman, J. M.
Deceased 6-4-46
Evans, E. B.
201 Leflang Bldg.
Everitt, Neill J.
4838 So. 24th St.
Ewing, Ben F.
220 Medical Arts
Farrell, Chester
721 Medical Arts
Farrell, Robert F.
411 Medical Arts
Fellman, A. C.
316 City Natl. Bank
Findley, David
446 Aquila Court
*Findley, Palmer
446 Aquila Court
Finegan, James
415 Medical Arts
Finlayson, Alister I.
1527 Medical Arts
Fleishman, Max
260 Aquila Court
Follman, John C.
1136 First Natl. Bank
Fouts, Roy W.
1067 Medical Arts
Frandsen, Charles
1120 Medical Arts
Freymann, J. J.
1113 Medical Arts
Gardiner, J. F.
628 Medical Arts
Gatewood, John W.
326 Medical Arts
Gedgoud, John L.
University Hospital
Gerald, H. F.
Creighton Uni. School of
Medicine
Gifford, Harold
1620 Medical Arts
Gleeson, John J.
601 City Natl. Bank
Green, M. C.
454 Aquila Court
Greenberg, A.
320 Medical Arts
Greenberg, Maynard M.
516 Medical Arts
Greene, Arthur M.
629 Medical Arts
Grier, John J.
1307 Medical Arts
Grier, Maurice E.
1307 Medical Arts
Grodinsky, M.
902 Medical Arts
Gysin, Walter Mark
Lutheran Hospital
Hahn, W. N.
517 City Natl. Bank
Hall, Lynn T.
1204 Medical Arts
Hamsa, W. R.
527 Medical Arts
Haney, W. P.
1500 Medical Arts
Hanisch, L. E.
1218 Medical Arts
Hansen, Clifford H.
527 City Natl. Bank
Hansen, G. M.
4826 So. 24th St.
Hardy, C. C.
1216 Medical Arts
Harris, T. T.
Clarkson Hospital
Harrison, Merle A.
West Point, Nebr.
Hartmann, Chas. M.
2890 Bauman Ave.
Hawkins, Anthony L.
2120¼ No. 24th St.
Hays, E. R.
70 Pine St.,
New York, N. Y.
Hellwig, J. W.
1008 WOW Bldg.
Henske, J. A.
1614 Medical Arts
Heumann, J. M. F.
6110 Military Ave.
Heywood, Leo
1307 Medical Arts
Hickey, Charles
Bennington, Nebr.
Hill, F. C.
430 Aquila Court
Hirschmann, H.
454 Brandeis Theater
Hoffman, L. O.
1012 Medical Arts
Holden, W. J.
Elkhorn, Nebr.
Hollenback, C. F.
5821 Military
*Holovtchiner, E.
426 Sunderland Bldg.
Holst, John
724 City Natl. Bank
Hotz, Harley
1013 Redick Tower
Howard, M. C.
802 Medical Arts
Hughes, Leo V.
304 City Natl. Bank
Hull, Wayne
104 So. 39th St.
Hunt, H. B.
Methodist Hospital
Hyde, J. F.
812 Omaha Loan & Bldg
Isacson, Sven
410 Aquila Court
Iwersen, Frank J.
915 Medical Arts
Iwersen, J. C.
236 Medical Arts
Jahr, Herman M.
1120 Medical Arts
James, C. S.
615 Medical Arts
Jenkins, Harry J.
1113 Redick Tower
Johnson, A. C.
326 Medical Arts
Johnson, Herman F.
831 Medical Arts
Johnson, J. A.
602 Omaha Loan & Bldg
Jones, Wesley
1514½ No. 24th St.
Judd, J. H.
1020 Medical Arts
Kadavy, G. J.
2703 So. 16th St.
Keegan, J. Jay
1527 Medical Arts
Kelley, Ernest
1104 City Natl. Bank
Kelley, J. Whitney
1104 City Natl. Bank Bldg.
Kelley, Wm. E.
1104 City Natl. Bank
Kelly, James
816 Medical Arts
Kemp, W. T.
1631 Spencer
Kempf, Terence
4923 So. 24th St.
Kennedy, Herbert B.
Insurance Bldg.
Kennedy, John C.
1520 Medical Arts
Kenney, Bernard
617 Medical Arts
Kirk, E. J.
434 Aquila Court
Klabenes, Frank J.
1020 Medical Arts
Kleyla, John R.
712 Medical Arts
Korth, Z. N.
1319 Medical Arts
Kroupa, W. E.
4923½ So. 24th St.
Kully, Herman
516 Medical Arts
*Langdon, J. F.
1341 Medical Arts
Lee, Leroy W.
1436 Medical Arts
Lehnhoff, Henry J.
1530 Medical Arts
Lempka, Arnold
502 Medical Arts
Lennox, G. B.
2314¼ No. 24th St.
Lewis, Raymond G.
434 Aquila Court
Longo, Chas. A.
106 W. 20th St., Bellevue
Longo, Joseph A.
1136 First Natl. Bank
Lovely, Frank T.
1136 First Natl. Bank
Lueth, Harold C.
Uni. of Nebr. College
of Medicine
Luikart, Ralph
708 Medical Arts
Lukovsky, J. F.
815 WOW Bldg.
Mackenbrock, Frederick C.
830 City Natl. Bank
Madsen, Charles C.
5901 Military
Mangimelli, Samuel T.
712 Barker Bldg.
Manning, E. T.
1407 Medical Arts
Marble, R. E.
1221 First Natl. Bank
Margolin, Julius M.
902 Medical Arts
Margolin, M.
902 Medical Arts

Marsh, Charles
Valley, Nebr.
Martin, James W.
1420 Medical Arts
Martin, Otis
Papillion, Nebr.
Mauer, R. T.
1520 Medical Arts
Maxwell, J. T.
1140 Medical Arts
MacQuiddy, E. L.
478 Aquila Court
McArdle, G. Prentiss
1007 Medical Arts
McAvin, J. S.
University Hospital
McCarthy, Harry H.
326 Medical Arts
McCarthy, J. D.
1036 Medical Arts
McCleneghan, S.
615 City Natl. Bank
McCurdy, T.
California
McDermott, Arnold
712 Medical Arts
McEachen, Esther I.
307 Medical Arts
McGee, Harry E.
1126 City Natl. Bank
McGee, J. W.
430 Aquila Court
McGoogan, Leon S.
813 Medical Arts
McGuire, L. D.
326 Medical Arts
*McKean, J. W.
351 Terminal Ave.,
Long Beach, Calif.
McLaughlin, C. W.
413 Medical Arts
McMartin, Charles
611 City Natl. Bank
McMartin, J. W.
611 City Natl. Bank
McNamara, J. W.
704 City Natl. Bank
Mercer, Nelson S.
2506 Dodge St.
Millett, Clinton C.
304 City Natl. Bank
Mnuk, Frank J.
460 Aquila Court
Montgomery, Earl C.
1620 Medical Arts
Moody, W. B.
530 Medical Arts
Moon, Charles F.
1607 Medical Arts
Moon, Louis E.
1326 Medical Arts
Moore, Clyde
319 Medical Arts
Moore, Ralph
Uni. of Nebr. College
of Medicine
Morrison, W. Howard
1500 Medical Arts
Morrow, Paul N.
1614 Medical Arts
Moser, R. Allyn
1407 Medical Arts
Muehlig, Wilbur A.
Rochester, Minn.
Muldoon, J. K.
5021 Nicholas St.
Murphy, Albert V.
1420 Medical Arts
Murphy, Charles M.
Benson Medical Center
Murphy, J. Harry
915 Medical Arts
Murray, Floyd J.
Benson Medical Center
Nelson, Floyd
6067 Military
Nemec, C. J.
629 City Natl. Bank
Nemec, Edward C.
629 City Natl. Bank
Neu, Harold N.
462 Aquila Court
Nickum, Oliver C.
524 Brandeis Theater
Niehaus, F. W.
1622 Medical Arts
Nilsson, John F.
612 Omaha Loan & Bldg.
Nilsson, John R.
612 Omaha Loan & Bldg.
Nolan, W. J.
203 Baldridge Bldg.
Novak, William F.
721 Medical Arts
O'Brien, Donald J.
1229 First Natl. Bank.
Offerman, A. J.
4826 So. 24th St.
O'Hearn, J. J.
4811½ So. 24th
O'Neil, Gerald C.
640 City Natl. Bank
Osheroff, S. A.
536 Medical Arts Bldg.
Owen, D. R.
1107 Medical Arts
Owens, C. A., Jr.
1515 Medical Arts
Parsons, Antony
Valley, Nebr.
Pepper, Maurice L.
715 Medical Arts
Pleiss, Joseph A.
802 Medical Arts
Pollard, Chas. W.
Peru, Nebr.
*Potts, John B.
3817 Military Ave.
Poynter, C. W. M.
Uni. of Nebr. College
of Medicine
Pratt, George Pratt
1234 Medical Arts
Prichard, Geo. W.
3013 Ames Ave.
Priest, Paul H.
2210½ Military Ave.
Pruner, A. C.
402 Medical Arts
Quigley, D. T.
721 Medical Arts
Quigley, W. H.
636 Medical Arts
Ragan, L. E.
4411 No. 30th St.
Rance, W. T.
730 City Natl. Bank
Rasgorshek, R. H.
425 Aquila Court
Read, Paul S.
2415 Fort St.
Reaney, Burnell F.
1116 Medical Arts
Redgwick, J. P.
1530 Medical Arts
Reed, S. G.
306 So. 24th St.
*Rich, C. O.
5017 Chicago St.
Riley, B. M.
538 City Natl. Bank
Robertson, Geo. E.
308 So. 39th St.
Rubendall, Clarence
1107 Medical Arts
Rubnitz, A. S.
732 Medical Arts
Russum, B. C.
816 Medical Arts
Sachs, Adolph
527 City Natl. Bank
Sage, Earl C.
1234 Medical Arts
Schmitz, W. H.
611 City Natl. Bank
Schrock, R. D.
831 Medical Arts
Schwertley, F. J.
614 Barker Bldg.
Severin, Math J.
4823 So. 24th St.
Shearer, Wm. L.
1226 Medical Arts
Sher, Philip
424 Brandeis Theater
Shramek, C. J.
510 Redick Tower
Shramek, J. M.
1504 King St.,
La Crosse, Wis.
Simanek, George F.
540 Medical Arts
Simmons, Eugene E.
826 Medical Arts
Simonds, Francis L.
1216 Medical Arts
Simpson, John E.
1229 First Natl. Bank
Slutzky, Ben
205 No. 38th St.
Smith, Thomas T.
211 Medical Arts
Sobota, Jos. E.
3019 Ames Ave.
Solomon, W. W.
2425 No. 24th St.
Srb, A. F.
1719 So. 16th St.
Stastny, Olga
3303 Farnam St.
Staubitz, Herbert
Benson Medical Center
Stearns, R. J.
620 Omaha Loan & Bldg.
Steinberg, A.
536 World Herald
Steinberg, Maurice
536 World Herald
Stokes, W. H.
1620 Medical Arts
Streitwieser, Robert J.
212 Medical Arts
Strickland, W. R.
514 Omaha Loan & Bldg.
Struve, E. E.
South America
Sucha, W. L.
915 Medical Arts
Sullivan, H. T.
1036 Redick Tower
Swab, Elizabeth M.
1316 Medical Arts
Swab, Charles
1316 Medical Arts
Swoboda, Jos. P.
4824½ So. 24th St.
Sydow, Henry
2806 Leavenworth St.
Tamisiea, John
718 Barker Bldg.
Taylor, W. H.
3807 Cuming St.
Thomas, John M.
1418 Medical Arts
Thompson, Charles E.
530 Medical Arts
Thompson, Chester Q.
1530 Medical Arts
Thompson, Dorothy H.
1234 Medical Arts
Thompson, Warren
1530 Medical Arts
Thomsen, John H.
205 So. 37th St.
Tipton, Paul W.
454 Aquila Court
Tollman, J. P.
University Hospital
Tomlinson, C. C.
1520 Medical Arts
Tompkins, Charles A.
304 So. 42nd St.
Torpy, T. W.
920 WOW Bldg
Traynor, R. L.
527 City Natl. Bank
Trimble, C. R.
2716 Fontenelle Blvd.
Va Verka, James W.
219 Medical Arts
Vetter, Jas. G.
721 WOW Bldg.
Vroman, Donald
813 Medical Arts
Walsh, Edmond
1412 Medical Arts
Warta, Joseph J.
817 WOW Bldg.
Waters, Chester H., Jr.
830 Medical Arts
Waters, Chester H., Sr.
1407 Medical Arts
Watke, Fred M.
528 Medical Arts
Wearne, Frederick J.
830 City Natl. Bank
Whitcomb, Glenn D.
926 Medical Arts
Wigton, Harrison A.
1614 Medical Arts
Wigton, Robert S.
1436 Medical Arts
Wilbur, Cornelia B.
562 West End Ave.,
New York City, N. Y.
Wilhelmj, C. M.
Creighton Uni. School
of Medicine
Wilson, Donald J.
1113 Medical Arts
Wright, W. D.
1622 Medical Arts
Wyrens, Raymond J.
316 Medical Arts
Young, A. James
1117 Medical Arts
Young, G. Alexander
1436 Medical Arts
Young, George A., Jr.
1436 Medical Arts
Young, Richard H.
1436 Medical Arts

SECOND DISTRICT

CLAYTON ANDREWS, Councilor

LANCASTER

LINCOLN—
Adams, R. B.
720 So. 22nd
Albin, W. L.
619 Fed. Sec. Bldg.
Alcorn, F. A.
2201 So. 11th
Alderson, D. M.
State Capitol Bldg.
Anderson, J. B.
Continental Bldg.
Andrews, Clayton F.
1016 Sharp Bldg.
Andrus, F. M.
Deceased 6-14-46
Angle, E. E.
903 Sharp Bldg.
Arnholt, M. F.
3421 "O" St.
Arnold, C. H.
903 Terminal Bldg.
Bancroft, Paul M.
621 Sharp Bldg.
Bartels, W. W.
1104 Sharp Bldg.
Barkey, V. S.
6245 Havelock
Bartholomew, P. H.
3345 So. 30th
Becker, W. C.
826 Sharp Bldg.
Black, Paul
929 Stuart Bldg.
Blum, Henry
214 Sec. Mut. Bldg.
Bowman, D. J.
400 No. 27th
Brooks, E. B.
939 Stuart Bldg.
Brown, John
307 Sharp Bldg.
Calhoun, O. V.
430 Stuart Bldg.
Campbell, W. A.
412 Lib. Life Ins. Bldg.
Carveth, W. W.
625 Sharp Bldg.
Case, J. D.
1101 Fed. Sec. Bldg.
Churchill, I. W.
200 Bankers Life Bldg.
Clark, E. E.
908 Terminal Bldg.
Coleman, F. D.
936 Stuart Bldg.
Covey, Geo. W.
805 Sharp Bldg.
Crook, C. E.
1112 Sharp Bldg.
Crook, G. D.
Ann Arbor, Mich.
Crook, Roy
4825 St. Paul
Curry, J. R.
952 Stuart Bldg.
Deppen, E. N.
911 Sec. Mut. Bldg.
Emerson, Clarence
1700 So. 24th St.
Emery, A. L.
Waverly, Nebr.
Everett, H. H.
417 Woodmen Acc. Bldg.
*Everett, H. H., Jr.
Fahnestock, C. L.
1812 So. 26th
Fatherree, L. L.
City Health Dept., Omaha
Fechner, A. H.
State Hospital
Ferciot, C. F.
1104 Sharp Bldg.
Finkle, B. A.
726 Sec. Mut. Bldg.

Finney, E. B.
323 So. 14th
Finney, L. E.
323 So. 14th
Flanagan, M. L.
5515 South St.
Flansburg, H. E.
415 Bankers Life Bldg.
Frazer, M. D.
1037 Stuart Bldg.
Furgason, A. P.
303 Richards Blk.
Garlinghouse, R. E.
723 Sharp Bldg.
Gibson, L. V.
903 Terminal Bldg.
Gilligan, J. P.
623 Sharp Bldg.
Graham, Alice
1701 So. 24th
Gray, Richard W.
State Hospital
Haentzschel, L. W.
Springfield, Mass.
Haley, Robert R.
Dayton, Ohio
Hancock, E. W.
820 Sharp Bldg.
Harms, C. W.
927 Sec. Mut. Bldg.
Harvey, H. E.
723 Sharp Bldg.
Heidrich, P. J.
905 Stuart Bldg.
Hickman, C. C.
1028 Stuart Bldg.
Hobbs, E. T.
1700 So. 24th
Hohlen, K. S. J.
914 Fed. Sec. Bldg.
Hompes, J. J.
702 Sharp Bldg.
Hummel, R. O.
1025 Sharp Bldg.
Johnson, F. B.
1110 Sharp Bldg.
Jones, T. K.
State Hospital
Lamb, W. E.
1645 "D" St.
Lewis, G. E.
332 Natl. Bank Com.
Long, Fred P.
State Capitol Bldg.
(Lincoln Co.)
Loveland, Grace
909 Sharp Bldg.
Loudon, John R.
800 So. 13th
Lyman, E. D.
City Health Dept.
Lyman, R. A.
1649 So. 21st
McCarthy, T. F.
202 Lib. Theatre Bldg.
McLeay, H. L.
State Hospital
Marx, L. E.
901 Fed. Sec. Bldg.
Marx, Paul D.
901 Fed. Sec. Bldg.
Miller, N. R.
513 Sec. Mut. Bldg.
Miller, S. D.
5515 South St.
Misko, G. H.
308 First Natl. Bank
Morgan, H. S.
935 Stuart Bldg.
Morton, H. B.
1037 Stuart Bldg.
Moyer, T. C.
Deceased 9-8-46
Munger, A. D.
1015 Sharp Bldg.
Munger, Horace
1015 Sharp Bldg.
Munger, I. C.
916 Sharp Bldg.
Neely, J. Marshall
924 Sharp Bldg.
Neely, Orvis A.
3414 Woodshire
Nye, Dan N.
707 Fed. Sec. Bldg.
Olney, R. C.
800 So. 13th
Orr, H. W.
307 Sharp Bldg.
Owen, L. J.
954 Stuart Bldg.
Palmer, Janet Forbes
1835 So. 24th
Palmer, R. B.
824 Sharp Bldg.
Paulson, H. O.
1001 Sharp Bldg.
Pelikan, C. C.
1037 Stuart Bldg.
Peterson, J. D.
702 Sharp Bldg.
Podlesack, J. I.
612 Terminal Bldg.
Quisenberry, W. D.
Alhambra, Calif.
Rausten, D. S.
4025 Sheridan
Reed, E. B.
1037 Stuart Bldg.
Reese, S. O.
816 Sharp Bldg.
Reinhard, O. A.
1037 Stuart Bldg.
Rembolt, Ray R.
1037 Stuart Bldg.
Rider, E. E.
Santa Barbara, Calif.
Rider, Larry D.
2425 South St.
Ritter, Jerome
1107 Fed. Sec. Bldg.
Rogers, E. A.
1635 So. 26th
(Saunders County)
Rogers, F. L.
805 Sharp Bldg.
Rose, F. I.
916 Sharp Bldg.
Rowe, E. W.
1037 Stuart Bldg.
Royal, P. A.
5515 South St.
Sanderson, D. D.
914 Stuart Bldg.
Scott, H. A.
600 So. 74th
Sharrar, Lynn
719 Sharp Bldg.
*Sheldon, Keith W.
Ft. Washington, Pa.
Sherfey, Carl
1029 Sumner (Hall Co.)
Skinner, A. O.
Deceased 3-20-46
Smith, A. L.
1001 Fed. Sec. Bldg.
Spradling, F. L.
State Hospital
Stafford, G. E.
823 Sharp Bldg.
Stapleton, H. B.
Hickman, Nebr.
Stein, Robert J.
308 Sec. Mutual
Strader, R. M.
308 Sec. Mutual
Still, R. M.
417 Woodmen Acc. Bldg.
Taborsky, A. F.
308 Sec. Mutual
Tanner, Frank H.
2929 So. 29th
Taylor, H. A.
4728 St. Paul
Taylor, J. D.
4728 St. Paul
Teal, F. F.
910 Sharp Bldg.
Teal, Fritz, Jr.
309 Sharp Bldg.
Thomas, J. W.
1310 Crestdale Road
Thompson, J. C.
707 Fed. Sec. Bldg.
Thomson, J. E. M.
1104 Sharp Bldg.
Thorough, Paul
1027 Sharp Bldg.
(Otoe County)
Underwood, G. R.
805 Sharp Bldg.
Walker, G. H.
412 Ins. Bldg.
Warner, Ruth
954 Stuart Bldg.
Webb, A. H.
827 Sec. Mutual Bldg.
Wegner, E. S.
724 Sharp Bldg.
Welch, J. S.
1037 Stuart Bldg.
Whitham, Roy H.
909 Stuart Bldg.
Whitlock, H. H.
805 Sharp Bldg.
Wiedman, E. V.
315 First Natl. Bank
Williams, J. B.
1226 "C" Street
Wood, Maynard A.
1037 Stuart Bldg.
Woodward, J. M.
910 Sharp Bldg.
Wright, F. T.
943 Stuart Bldg.
Zemer, S. G.
949 Stuart Bldg.
Zinneman, Helmut
805 Sharp Bldg.

CASS

AVOCA—
Brendel, J. W.

ELMWOOD—
Liston, O. E.

LOUISVILLE—
Worthman, E. H.
Worthman, H. W.

MURRAY—
Tyson, R. W.

PLATTSMOUTH—
Brendel, R. F.

WEEPING WATER—
Kunkel, L. N.

OTOE

NEBRASKA CITY—
Burbridge, G. R.
Edmonds, Wm.
Ewing, Ben E.
Kenner, W. C.
McIllece, R. C.
MacVean, M. M.
Ramacciotti, W. S.
Stonecypher, D. D.
Weeks, T. L.
Zimmerer, C. G.

OTOE—
Dieter, L. D.
Formanack, C. J.

SYRACUSE—
Williams, C. R.

TALMAGE—
Carey, B. P.

THIRD DISTRICT

W. E. SHOOK, Councilor

GAGE

ADAMS—
*Swartwood, F. M.
Waggener, J. T.

BEATRICE—
Bradley, C. A.
Brott, C. R.
Brown, H. R.
Brown, R.
Bryant, A. R.
Buchanan, Rea
Buckley, F. W.
Elias, H. F.
Hepperlen, H. M., Jr.
McCleery, D. P.
McGirr, J. I.
Murphy, H. R.
Penner, H. G.
Penner, L. E.
Rathbun, S. M.
*Rush, W. A.
Taylor, R. W.
Waddell, J. C.
Waddell, W. W.
Wildhaber, Wm. T.

BLUE SPRINGS
Warner, E. A.

CORTLAND—
Schowengerdt, F. T.

FILLEY—
Hodam, J. A.

LIBERTY—
Bachle, E. P.

ODELL—
Rice, C. E.

WYMORE—
Elias, Francis
Thomas, C. W.

HANOVER, KANSAS—
Hurtig, H. G.

PAWNEE

LEWISTON—
Douglas, John W.

PAWNEE CITY—
Anderson, A. B., Jr.
Boyer, W. R.
*Harmon, L. D.
Lowe, DeWitt S.
(Colorado Springs, Colo.)

TABLE ROCK—
McCrea, E. L.

NEMAHA

AUBURN—
Cline, Edgar
Irvin, I. W.
Krampert, F. L.
Scott, Paul M.
Tushla, F. M.

BROCK—
Stappenbeck, P. H.

PERU—
Pollard, Chas. W.
(Douglas Co.)
Thomson, Bertha M.

RICHARDSON

FALLS CITY—
Cowan, S. D.
Gillispie, J. C.
Henderson, R. G.
Hustead, C. L.
Ketter, W. D.
Lennemann, Ernest
Miner, H. R.
Shepherd, Wm.
Wilson, M. L.
Youngman, Robert A.

HUMBOLDT—
Heim, H. S.
Stappenbeck, A. P.
Waggoner, J. A.

SALEM—
McArdle, Geo. M.
Bellevue, Nebr.

SHUBERT—
Shook, W. E.

WADSWORTH, KANSAS—
Hinkle, W. I.

JOHNSON

COOK—
Conlee, C. C.

STERLING—
Morrill, W. L.
Turner, J. W.

TECUMSEH—
Lanspa, J. A.
Van Ackeran, E. G.

VESTA—
Zeigler, Chas. H.

FOURTH DISTRICT

G. E. PETERS, Councilor

MADISON

BATTLE CREEK—
Rudloff, F. X.

MADISON—
Bruce, J. J.
Palmateer, H. R.

NEWMAN GROVE—
Frink, F. L.
Jensen, Frank

NORFOLK—
Barry, A. C.
Brauer, S. H.
Brush, E. L.
Charlton, Geo. E.
Conwell, G. D.
Farner, B. R.
Howley, A. N.
Ingham, C. G.
Johnson, L. A.
Lytton, Geo. J.
Pollack, F. A.
Salter, Geo. B.
Sandritter, G. L.
Schwedhelm, A. J.
Slaughter, E. C.
Slaughter, Guy
Stark, Lucien
Stewart, Geo. J.
Surber, E. G.
Verges, C. J.

TILDEN—
Barr, Carl C.
Salsburg, H. E.

CUMING

BANCROFT—
Francis, H. W.
Hughes, W. T.

WEST POINT—
Anderson, A. W.
Harrison, M. D.
(Douglas Co.)
Taylor, Bowen E.
Thompson, I. L.

WISNER—
Hansen, Warren D.

PIERCE

OSMOND—
Mailliard, A. E.
Rodgers, C. E.

PIERCE—
Calvert, John H.
Devers, W. I.

PLAINVIEW—
Johnson, M. A.

KNOX

CREIGHTON—
Burrell, R. H.
Wright, W. E.

BLOOMFIELD—
Kohtz, R. H.

CROFTON—
Swift, C. H.

NIOBRARA—
Neil, Stanley Roy

WAUSA—
Johnson, R. E.

STANTON

PILGER—
Reid, J. D.

STANTON—
Allen, S. G.
Tennant, H. S.

ANTELOPE

CLEARWATER—
Bennie, J. W.

ELGIN—
Graham, W. W.

NELIGH—
Curtis, E. E.
Harrison, U. S.

ORCHARD—
Fletcher, D. L.
Fletcher, W. G.

CEDAR

COLERIDGE—
Dewey, F. G.

HARTINGTON—
Dorsey, F. P., Jr.

LAUREL—
Carroll, R. P.

RANDOLPH—
Cook, A. E.
Gleason, B. F.
Peters, G. E.

DIXON

NEWCASTLE—
Richards, R. C.

PONCA—
Bray, R. E.

WAKEFIELD—
Coe, C. Max

THURSTON

PENDER—
Leonard, E. R.
Pierson, C. A.

WALTHILL—
Graham, J. R.

DAKOTA

SOUTH SIOUX CITY—
Larsen, A. A.
Neill, C. W.

WAYNE

WAYNE—
Benthack, Walter
Ingham, C. T.
107 So. Chapel Ave.,
Alhambra, Calif.
Kilian, L. J.
Deceased 4-27-46
Matson, Roy M.
(Phelps Co.)

WINSIDE—
Craig, D. O.

FIFTH DISTRICT

W. R. NEUMARKER, Councilor

DODGE

DODGE—
Srb, G. J.

FREMONT—
Buchanana, A. E.
Byers, Robert C., Jr.
Byers, R. C.
Fasser, A. O.
Harvey, Andrew
Haslam, G. A.
Heine, L. H.
Heine, W. H.
Hill, W. H.
Jakeman, Harry A.
Malloy, E. F.
Merrick, A. J.
Moore, C. G.
Morrow, H. H.
Morrow, H. N.
Reeder, Grant
Seiver, Charlotte
Van Meter, R. T.
Wengert, D. B.

HOOPER—
Heine, C. D.

NORTH BEND—
Byers, G. A.

SCRIBNER—
Stehl, C. H. L.

WASHINGTON

ARLINGTON—
Bloch, D. M.
(Dodge Co.)
Davies, R. A.
(Dodge Co.)

BLAIR—
Goehring, W. E.
Howard, C. D.
Nielsen, Morris
Pedersen, A. M.

MERRICK

CENTRAL CITY—
Benton, J. E.
Brown, A. D.
Fouts, F.

CLARKE—
Douglas, R. R.

PALMER—
Racines, J. Y.
(Howard Co.)

COLFAX

CLARKSON—
Kavan, W. J.
Kovar, W. R.

HOWELLS—
Myers, H. Dey

LEIGH—
Eby, C. D.
Kuper, H. D.

SCHUYLER—
Kavan, L. C.
Kolouch, F. C.
Kolouch, Fred
Uni. of Minnesota
Koory, S. B.
Myers, H. Dey, Jr.

BOONE

ALBION—
Davis, J. E.
Higgins, J. P.
Oxnard, Calif.
Smith, J. W. B.

CEDAR RAPIDS—
Reeder, W. J.

ST. EDWARD—
Sullivan, G. W.

BURT

CRAIG—
Allen, J. G.

Lyons—
Heacock, F. M.

OAKLAND—
Benson, H. W.
Tibbels, R. H.

TEKAMAH—
Lukens, I.
Morrow, L.
Sauer, L. E.
Wood, M.

PLATTE

COLUMBUS—
Allenburger, C. A.
Anderson, R. C.
Berney, Paul W.
Brillhart, E. G.
Campbell, C. H.
Evans, James N.
James, M. C.
Koebbe, E. E.
LeMar, Fred A.
McGowan, P. H.
Martyn, D. T.
Meyer, J. E.
Morrow, F. H.
Neumarker, W. R.

DUNCAN—
Cyphers, F. B.

HUMPHREY—
Abts, A. W.

PLATTE CENTER—
Bald, A. A.

NANCE

FULLERTON—
Granden, H. W.
King, H. E.

GENOA—
Davis, Homer
Williams, C. D.

SIXTH DISTRICT

C. W. WAY, Councilor

BUTLER

BELLWOOD—
Matheny, Z. E.

DAVID CITY—
Anderl, V. K.
Burdick, D. E.
Ekeler, Louis J.

DWIGHT—
Srb, J. J.

RISING CITY—
Longacre, O. E.

SEWARD

BEAVER CROSSING—
Hille, C. F.

MILFORD—
DeOgny, P. A.
Spieler, F. B.

SEWARD—
Carr, J. W.
Clarke, H. D.
Morrow, B. E.
Morrow, J.
Smith, Richard D.
Stanard, John T.

SAUNDERS

ASHLAND—
Baer, B. H.
Packer, J. M.

CEDAR BLUFFS—
Stuart, A. E.

CERESCO—
Noyes, W. W.

MORSE BLUFF—
Hubenbecker, J. C.

PRAGUE—
Kasper, J. E.
Ruzika, M. J.

WAHOO—
Hill, W. Ray
Lathrop, M. E.
Lauvetz, J. F.
Way, Charles

YUTAN—
Friesen, H. F.

YORK

YORK—
Bell, H. O.
Bell, J. S.
Greenberg, B. N.
Harry, R. E.
Karrer, Robert E.
Kilgore, Robert N.
Kilgore, W. S.
Root, B. A.

HAMILTON

AURORA—
Otto, Claude W.
Frankfort, Ill.
Steenburg, D. B.
Steenburg, E. A.
Deceased 2-1-46
Steenburg, E. K.
Woodard, J. M.

GILTNER—
Marvel, P. O.

HAMPTON—
Troester, O. M.

MARQUETTE—
Weaver, R. L.

POLK

OSCEOLA—
Eklund, H. S.

STROMSBURG—
Anderson, C. L.
Blome, W. N.

SEVENTH DISTRICT

A. A. ASHBY, Councilor

SALINE

CRETE—
Forney, L. W.
Homan, Richard W.
Huber, Paul J.
Stejskal, F. J.

DEWITT—
Runty, H. D.
(Gage Co.)

FRIEND—
Hamilton, F. T.
Johnson, R. K.

TOBIAS—
Blattspieler, A. C.

WESTERN—
DuVall, Geo. R.

WILBUR—
Kirchman, R. C.
Travnicek, F. G.

THAYER

ALEXANDRIA—
Newell, H. J.
BYRON—
Decker, R. F.
CARLETON—
Douglas, V. D.
CHESTER—
Mullikin, D. B.
DESHLER—
Reed, Paul A.
DAVENPORT—
Mourtford, F. A.
Snowden, C. C.
Deceased 10-25-46

HEBRON—
Panter, S. G., Jr.

SUPERIOR—
McMahon, C. G.
Mason, C. T.
Trowbridge, J. A.
Webman, A. I.

NUCKOLLS

NELSON—
Ingram, J. E.

FILLMORE

FAIRMONT—
Ashby, A. A.
GENEVA—
Bixby, J.
Hickman, J. C.
MILLIGAN—
Smrha, V. V.
AMARILLO, TEXAS—
Wegener, Karl F. E.
NORTHAMPTON, MASS.—
Albertson, Miriam A.

JEFFERSON

DAYKIN—
Humphrey, H. H.

FAIRBURY—
Heath, Geo. A.
Hughes, D. O.
Kantor, D. B.
Luce, R. P.
*Lynch, Geo. M.
Lynch, J. H.
Powell, M. J.

CLAY

HARVARD—
Nutzman, C. L.
Denver, Colo.
Pinckney, C. E.
Hurley, New Mexico

SUTTON—
Nuss, H. V.

ONG—
Asa, O. C.

EIGHTH DISTRICT

O. W. FRENCH, Councilor

SHERIDAN

HAY SPRINGS—
Swenson, S. A.
Wolf, W. K.

RUSHVILLE—
Hook, R. L.

BOYD

LYNCH—
Kriz, R. E.

SPENCER—
Bradley, E. B.

ROCK

BASSETT—
Panzer, H. J.

HOLT

ATKINSON—
Douglas, W. J.
McKee, N. P.

CHAMBERS—
Gill, James W.
O'NEILL—
Brown, J. P.
French, O. W.
STUART—
Clark, F. J.

BROWN

AINSWORTH—
Brady, R. R.
Lear, W. D.
Rasch, A. G.

CHERRY

VALENTINE—
Deakin, Thos. W.
Compton, A. N.
Farner, John
Johnson, Wilber E.

NINTH DISTRICT

M. O. ARNOLD, Councilor

HALL

GRAND ISLAND—
Arrasmith, W. J.
Campbell, John F.
DeMay, G. H.
Farnsworth, Earle
Geer, Robert R.
Gelow, John E.
Higgins, J. E.
Hombach, W. H.
Johnson, Earle G.
McDermott, K. F.
McGrath, Wilmer D.
McGrath, Wm. M.
Maggorie, Carl H.
Martin, R. D.
Newman, J. C.
(Lincoln Co.)
Phelan, L. D.
Reilly, John V.
Royer, Howard
Ryder, Frank
Synhorst, A. P.
Watson, Donald
Watson, E. A.
Woodin, J. G.
Woodruff, R. C.
WOOD RIVER—
Molzahn, A. J.

BUFFALO

ELM CREEK—
Laughlin, J. W.

KEARNEY—
*Albertson, L. C.
Bancroft, B. R.
Edwards, C. B.
Elliott, Thos. S.
Enos, A. A.
Gibbons, C. K.
Hansen, H. C.
Jester, R. F.
Johnson, O. D.
Johnston, R. S.
Nutzman, Wm.
Rose, W. E.
Rudolph, C. W.
Smith, Harold V.
Staley, Sanford O.
*Wilcox, M. B.

RAVENNA—
*Dickinson, L. E., Jr.
Dickinson, L. E., Sr.
Ehlers, O. C.

CUSTER

ANSELMO—
Spivey, C. D.

ANSLEY—
Wilcox, C. W.

ARNOLD—
Burnham, F. A.

BROKEN BOW—
Bowman, C. L.
Carothers, P. H. J.
Erickson, G. T.
Koefoot, Theo.
Pennington, G. E.

CALLAWAY—
Bryson, R. D.

SARGENT—
McDaniel, V. S.

DAWSON

COZAD—
Fochtman, L. H.
Sheets, C. H.

EDDYVILLE—
Kile, J. B.

GOTHENBURG—
Harvey, H. M.
Pyle, B. W.
Stevenson, E. C.

LEXINGTON—
Anderson, A. W.
Ayres, M. J.
(Lancaster Co.)
Dorwart, H. E.
Dorwart, T. Y.
Norall, V. D.
Olsson, P. Bryant
Rosenberg, F. J.
Wycoff, R. S.

PORTSMOUTH, N. H.—
Fochtman, John T.

HOOKER

MULLEN—
Walker, D. A.

HOWARD

ST. PAUL—
Arnold, M. O.
Hanisch, E. C.
Washington, D. C.
Hynes, W. P.

GREELEY

GREELEY—
Brannen, J. L.

SPALDING—
Giever, J. C.
Sullivan, M. M.

WOLBACH—
Holm, A. H.
(Howard Co.)

VALLEY

NORTH LOUP—
Hemphill, W. J.

ORD—
Barta, F. A.
Miller, C. J.
Round, John N.
San Leandro, Calif.
Weeks, C. W.

GARFIELD

BURWELL—
Cram, Roy S.
Smith, E. J.

SHERMAN

LITCHFIELD—
Rydberg, C. A.
(Custer Co.)

LOUP CITY—
Amick, C. G.
(Custer Co.)
Knauff, Harry A.
(Custer Co.)

GRANT

HYANNIS—
Howell, W. L.
(Box Butte Co.)

TENTH DISTRICT

H. S. ANDREWS, Councilor

ADAMS

HASTINGS—
Anderson, H. F.
Boren, A. J.
Brown, J. W.
Charlton, Geo. P.
Cushing, R. L.
DeBacker, L. J.
Egen, L. F.
Feese, J. P.
Foote, C. M.
Foote, D. B.
Foote, E. C.
Grove, Howard R.
Bakersfield, Calif.
Guildner, G. W.
Harrington, A. E.
Hutchison, J. W.
(Merrick Co.)
Jones, S. J.
Kingsley, D. W.
Kostal, O. A.
Latta, E. J.
Mace, John L.
Morrow, C. W.
Pinney, Geo. L.
Rork, L. W.
Schaefers, Richard H.
*Shaw, W. L.
Smith, A. A.
Swanson, L. A.
Los Angeles, Calif.
*Uridil, C. F.
Uridil, J. E.
Weber, C. R.
Wegman, Wm. M.

INGLESIDE—
Coats, Edwin A.
Coen, Robert A.
Portland, Ore.
Davies, D. M.
Laird, C. R.
Marx, J. R.
Denver, Colo.
Neilsen, J. C.
O'Donnell, H. J.

KENESAW—
Nowers, W. E.

FRANKLIN

BLOOMINGTON—
Sparks, M. L.

FRANKLIN—
Bratt, Mary
Nail, F. E.
Rosenberg, D. S.
Smith, Hal C.

HARLAN

ALMA—
Bartlett, W. C.
Kerr, R. H.

ORLEANS—
McGrew, K. C.

WEBSTER

BLUE HILL—
O'Neill, S. H.

RED CLOUD—
Lewis, Dorothy Jane
Oranga, Calif.
Lewis, E. V.
Oranga, Calif.

RED WILLOW

McCOOK—
DeMay, G. A.
Donaldson, J. H.
James, L. D.
Jones, R. T.
Karrer, F. M.
Leininger, E. F.
Morgan, D. H.
Shank, F. W.
Willis, J. M.

LEBANON—
Bartholomew, W. S.

BALTIMORE, MD.—
Brimmer, K. W.

DUNDY

BENKELMAN—
Lewis, N. H.
Morehouse, G. A.
Premer, J. F.

CHASE

IMPERIAL—
Day, Robert J.
Hoffmeister, G. F.
Smith, Fay

WAUNETA—
Carlson, C. R.

HITCHCOCK

PALISADE—
Fellers, A. B.

STRATTON—
Brown, L. B.
Brown, Kenneth W.

TRENTON—
Prest, J. E.

FRONTIER

CURTIS—
Magill, Van H.

EUSTIS—
Rosenau, O. P.
(Dawson Co.)

MAYWOOD—
Mills, B. I.

KEARNEY

MINDEN—
Abbott, C. E.
(Adams Co.)
Abbott, H. A.
(Buffalo Co.)
Andrews, H. S.
(Adams Co.)
Peck, Willard R.
(Adams Co.)

FURNAS

BEAVER CITY—
Lull, C. C.

CAMBRIDGE—
Minnick, Clarence
Stearns, H. I.

OXFORD—
Evans, C. D., Jr.
Smith, A. J.
(Phelps Co.)

GOSPER

ELWOOD—
Clark, G. A.
(Dawson Co.)

PHELPS

BERTRAND—
Clark, G. W.

HOLDREGE—
Best, Robert
*Brewster, Donald E.
Brewster, F. A.
Brewster, F. W.
McConahay, H. A.
Peterson, Theo. A.
Reeder, Robert C.
Reiner, Walter M.
Shreck, H. W.
Shreck, W. A.

ELEVENTH DISTRICT

J. B. REDFIELD, Councilor

LINCOLN

BRADY—
Schneider, A. L.

NORTH PLATTE—
Anderson, Joel
Callaghan, A. J.
Clarke, H. L.
Dent, G. B.
Dent, T. E.
Drasky, Stanley
Fetter, E. W.
Heider, C. F.
Kerr, T. J.
Kreymborg, O. C.
McDonald, H. A.
McGraw, Harriett
Millhouse, J. H.
Seattle, Wash.
Redfield, J. B.
Reeves, A. E.
Shaughnessy, E. J.
Stevenson, Ed
Valentine, L. F.
Walker, H. H.
Waltemath, G. F.

SUTHERLAND—
Moore, Harlan E.

DALLAS, TEXAS—
Selby, C. A.

LOGAN

STAPLETON—
Carr, E. F.

DEUEL

BIG SPRINGS—
Baker, Howard
(Garden, Keith,
Perkins Co.)

CHAPPELL—
Colman, A. C.

GARDEN

LEWELLEN—
Morris, D. F.
Vesely, Francis V.

OSHKOSH—
Morris, Geo. H.
Seng, W. G.

KEITH

OGALLALA—
Harvey, E. A.
McFee, John L.
Vandiver, H. A.
Weyer, S. M.

PERKINS

GRANT—
Bell, F. M.
Colglazier, E. E.

TWELFTH DISTRICT

GEORGE W. PUGSLEY, Councilor

SCOTTS BLUFF

GERING—
Gentry, W. Max
Gentry, W. J.
Harvey, W. C.
Holmes, Wm. E.
Shike, W. E.

MINATARE—
Karrer, R. W.

MITCHELL—
Ohme, Kenneth
Watson, C. R.

MORRILL—
Prentice, O. D.

SCOTTSBLUFF—
Baker, Ellis E.
Baker, Paul Q.
Campbell, Louis S.
Ann Arbor, Mich.
Cooper, A. L.
Deceased 2-19-46
Dunham, L. H.
Franklin, W. S.
*Hanna, Joe T.
Herhahn, Frank T.
Hodnett, W. P.
Hudgel, L. E.
(Lincoln Co.)
Kleeberger, R. L.
Lovett, Ivan C.
Malott, R. J.
Rasmussen, N. H.
Riddell, Ted E.
Rosenau, John A.
Schrock, J. B.
Stoops, J. N.

BOX BUTTE

ALLIANCE—
Broz, J. S.
Burnham, A. G.
Hand, Geo. J.
Johnston, G. F.
Kennedy, J. F.
Kuncl, Joseph K.
Morgan, R. J.
Seng, O. L.
Slagle, C. E.
Sorensen, C. N.
Suegang, F. P.
Whitehead, E. I.

DAWES

CHADRON—
Courshon, A. J.
DeFlon, Eric G.
Hoevet, L. H.
Pierce, C. M.
Sinclair, R. D.

CRAWFORD—
Ivins, R. L.

CHEYENNE

DALTON—
Pankau, J. B.

SIDNEY—
Babbitt, Clifford H.
Bitner, C. U.
Cook, Hull A.
Dorwart, Clinton B.
Grimm, B. H.
Mantor, Hugh E.
Roche, R. E.

KIMBALL

KIMBALL—
Bartos, Paul
Manganaro, C. J.
Shamberg, Alfred H.

WASHINGTON, D. C.—
Miller, A. L.

MORRILL

BAYARD—
Doher, T. L.
(Scotts Bluff Co.)
Pugsley, G. W., Jr.
Pueblo, Colo.
Pugsley, G. W., Sr.
(Scotts Bluff Co.)

BRIDGEPORT—
Blackstone, H. A.
(Scotts Bluff Co.)

The Nebraska Society of Medical Technologists was organized for the purpose of promoting professional and ethical standards of the medical technologists in the state. The society is affiliated with the American Society of Medical Technologists. Annual meetings are held alternately in Omaha and in Lincoln.

One aim is to inform those interested in this field. We feel that there are girls in high schools throughout the state who may ask their physicians about such training. They may write to the Registry of Medical Technologists, Ball Memorial Hospital, Muncie, Indiana. They will receive a list of the requirements for training, and a list of the training schools.

The membership of the Nebraska Society of Medical Technologists is almost 50, and this is concentrated in the cities of Omaha and Lincoln. All medical technologists throughout the state are eligible for either active or associate membership. Is your medical technologist a member, If not, ask her to contact Miss Inez Roesky, Immanuel Hospital, Omaha.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

A well attended meeting of **The Third Councillor District** was held in Beatrice December 5th following a dinner at the Paddock Hotel at 6:30 p.m.

The speakers were: Dr. Earl G. Johnson, President of the State Medical Association; Dr. S. Walters, Lincoln, "Infertility in the Female"; Dr. C. B. McVay, Yankton, South Dakota, "Problems in Surgical Treatment of Hernia."

This is the first meeting held in the Third District for four years.

New officers elected were: President, Dr. H. R. Miner, Falls City; Secretary, Dr. H. M. Hepperlin, Beatrice, with the next meeting to be held in Falls City.

The **Eleventh Councillor District Medical Society** met at a 6:30 p.m. dinner November 13, 1946, in the Kiwanis Cabin at North Platte, Nebr. Dr. Joel Anderson presided.

Dr. A. E. Reeves was elected president; Dr. E. W. Fetter, vice president; Dr. Stanley Drasky, secretary and treasurer.

Dr. J. B. Redfield, councilor, spoke briefly on the new Old Age Assistance set-up.

Dr. R. F. Mullin of the Veterans Administration then gave a very interesting talk on the Medical and Surgical aspects of veterans as it pertained to the local medical profession.

The Six-County Medical Society met in the Hotel Waldorf, Norfolk, Nebr., Thursday evening, December 5, 1946.

The program follows: "The Trend of Treatment and General Management of Cancer of Sigmoid and Rectum," Louis Moon, M.D., Omaha, Nebr.; "Cancer of Colon, Especially Sigmoid and Rectum," Harold E. Eggers, M.D., Omaha, Nebr.

Dinner was served at 7:00.

Dr. M. H. Carrig, Bloomfield, was elected president; Dr. R. H. Kohtz, mayor of Bloomfield, was chosen vice president, and Dr. C. C. Barr, Tilden, secretary and treasurer.

Dr. and Mrs. B. H. Grimm, of Sidney, were hosts at a meeting of the **Tri-County Medical Association** meeting Monday evening, November 25, 1946. Dinner was served at the Country Club and after dinner hours were spent at the Grimm home. Cards provided entertainment for the doctors' wives while the doctors held their business session. Dr. J. Bunten of Cheyenne was speaker of the evening and gave an excellent address. Mr. Ben Cahoy of Scottsbluff, representative of the Upjohn company, was also a special guest and presented a sound film on "Nutrition".

Twenty-six doctors and ten Auxiliary members from the **Sixth Councilor District**, met in Osceola Monday evening, November 11, 1946, for their regular monthly meeting. Members of the Legion Auxiliary served the guests a turkey dinner in he Legion Rooms where the doctors later held their business meeting, while the Auxiliary adjourned to the home of Dr. and Mrs. H. S. Eklund.

Guest speakers for the evening were Dr. Mullins of Omaha, head of the Veterans' Administration, and Dr. Eggers, also of Omaha. Mrs. Houlten, state commander of the Cancer Society, was speaker at the Auxiliary meeting.

Members of the **Adams County Medical Society** elected Dr. J. P. Feese as president of the society at their monthly meeting Wednesday evening, December 4, 1946, at the Hastings State Hospital. Dr. Feese succeeds Dr. E. A. Coats as president.

Named as vice president of the society is Dr. A. E. Harrington. Reelected as secretary and treasurer of the organization is Dr. R. H. Schaefers. The election of officers for the coming year followed the banquet attended by members and their wives.

Dr. Coats presided at the business meeting and election of officers.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. G. S. McMillan formerly of Scottsbluff has moved to Indio, Calif.

Dr. John C. Thompson visited some of the eastern clinics in November.

Dr. Herbert Jackman formerly of Louisville has moved to Richmond, Va.

Dr. R. Russell Best attended the Western Surgical Association in Memphis in November.

Dr. M. H. Carrig of Bloomfield has been appointed volunteer naval recruiting officer at Norfolk.

Dr. Herbert H. Davis of Omaha was recently elected treasurer of the Western Surgical Association.

Dr. Orvis Neely of Lincoln attended a meeting of the Inter-American Congress of Radiology in Havana in November.

Dr. R. A. Youngman formerly of Falls City, following his release from the Army Medical Corps, has located in Lincoln.

Dr. William L. Wall is a new physician at the Veterans Hospital in Lincoln. Dr. Wall served two years in Greenland during the war.

James Bradley of Omaha attended a course in surgical technic at Cook County Graduate School of Medicine in Chicago in November.

Dr. Robert C. Reeder, formerly of Holdrege, has joined the Johnson Clinic at Valentine. Dr. Reeder served in the armed forces for four years.

Dr. W. K. Bennett has located in Red Cloud. Dr. Bennett is a graduate of the University of Nebraska, a veteran of three years and ten months in the Navy.

Dr. Franklin G. Osberg of Wausa has opened an office in Laurel. Dr. Osberg is a graduate of the University of Colorado School of Medicine, and served with the armed forces since 1944.

Dr. J. C. Nelson of Omaha has opened an office in Wymore. Dr. Nelson graduated from the University of Nebraska College of Medicine in 1941. He served thirty-four months in the Army Medical Corps.

Associated with Dr. L. J. Ekeler in David City is Dr. Ervin H. Heiser, formerly of Lincoln. Dr. Heiser is a graduate of the University of Nebraska in 1943. He served with the armed forces and was discharged in October.

Dr. Herbert C. Modlin of Omaha is the new chief of the open convalescent section of the Winter Veterans Hospital, Topeka, Kans. Dr. Modlin graduated from the University of Nebraska Medical College in 1938. He served three years in the Army Air Corps.

Dr. A. E. Bennett and Dr. Paul T. Cash announce the association with them of Dr. John A. Aita in the practice of neuropsychiatry. Dr. Aita is a diplomate of the American Board of neuropsychiatry and neurology and was formerly first assistant in neurology and psychiatry at the Mayo Foundation.

Dr. J. Marshall Neely and Dr. Orvis A. Neely of Lincoln announce the association of Dr. John T. McGreer, Jr. in the practice of radiology. Dr. McGreer is a diplomate of the American Board of Radiology and was formerly senior instructor in radiology at the University of Michigan, and radiologist at the Miami Valley Hospital, Dayton, Ohio.

Dr. R. G. Gustavson, chancellor of the University of Nebraska, will deliver the fellowship address at a convocation of the clinical congress of the American College of Surgeons. At this first annual meeting of the college since 1941, the program will include clinics, demonstrations, symposia, panel discussions, forums, medical motion pictures, and exhibits.

Eleven remaining members of the "Last Man Club," an organization comprising Lincoln medical men who are World War I veterans, held their 28th annual meeting in Hotel Cornhusker Monday.

Fifteen men were included in the original group organized by the late Dr. Roscoe Smith in 1919. The majority of these men served with Base Hospital 49, a Nebraska unit in France.

Memorial services for four members were held in the morning. The deceased include: Maj. J. M. Mayhew, Capt. Torrence C. Moyer, Lt. Miles J. Breuer and Lt. Roscoe L. Smith.

Full military uniform was the dress of the day for dinner to be held at the home of Lt. Stanley G. Zemer in the evening.

Members present at the luncheon included Lt. Col. H. W. Orr; Maj. Edward W. Rowe; Capts. J. J. Hompes, C. C. Hickman, Geo. H. Walker, Arbor D. Munger, and Lts. George W. Covey, H. E. Flansburg, James E. M. Thompson, Fred W. Webster and Stanley G. Zemer.

Tuberculosis Abstracts

Pulmonary tuberculosis is a disease of uncertainty, with periods of quiescence and of reactivation. While many individuals recover spontaneously, in others the disease may progress notwithstanding all manner of treatment. For many, recovery depends upon the knowledge and the facilities for properly adjusting the mode of life to the disease. This adjustment is best carried out under the watchful eye of the physician.

THE IMPORTANCE OF POSTSANATORIUM CARE OF THE TUBERCULOUS

One of the great dangers to the individual with tuberculosis is that the disease may advance considerably without the patient's being aware of it. For this reason it is essential that the pulmonary condition be observed periodically by means of properly taken X-ray films.

The education of the patient is one of the principal aims of sanatorium care. The knowledge of the disease, the reasons for making adjustments in living, working and in environment, the patient's part in recovery and its maintenance, all furnish the background for his care after leaving the sanatorium. Even after discharge, his disease is still a serious potential danger to himself and to his associates.

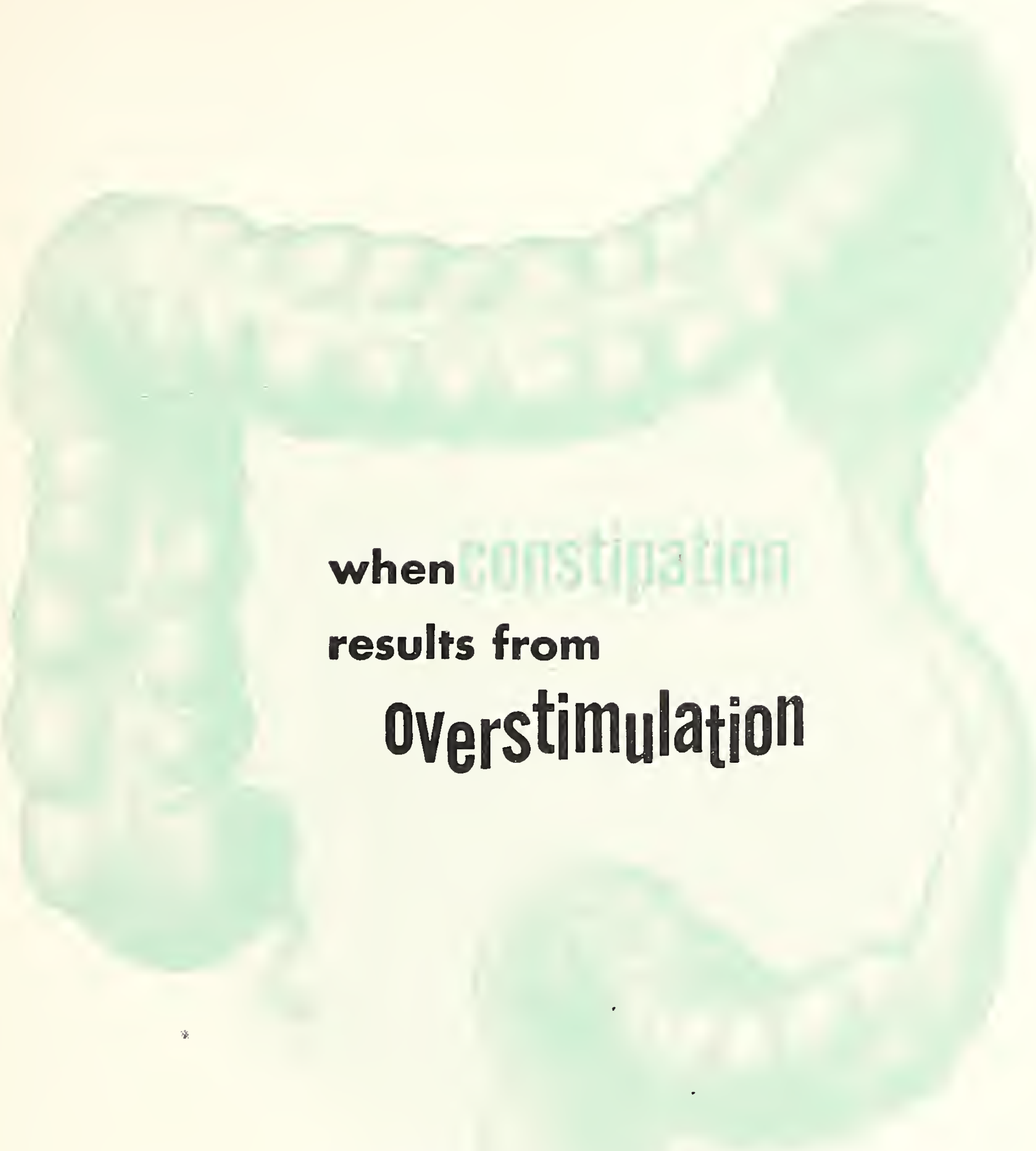
Early in sanatorium treatment, if it is possible, it must be determined to what extent the patient will be able to return to his former work and life. If he cannot assume the so-called "normal life," efforts should be made to fit him for work suitable to his condition. Recreational therapy, occupational therapy, rehabilitation and the establishment of work tolerance should go hand in hand with the general treatment. Ideally the sanatorium should conduct its physically able patients through all the stages of rehabilitation until a work tolerance of eight hours has been reached. Others should be brought to their maximum work tolerance and be put on part-time work.

The two most satisfactory guides for determining the patient's condition are the X-ray film and the patient's temperature. Of these, serial X-ray films tell us more completely the dynamic state of the disease. When the X-ray films show marked changes for better or worse, the disease is active, retrogressively or progressively, and rest in bed is indicated. Such is the case, too, when elevation of temperature not due to other causes is present or there is loss of weight, loss of appetite, or fatigue. To determine the status of the disease, the patient should take his temperature and pulse at about 4:00 p.m. and 8:00 p.m., and keep a record of it as well as of any toxic symptoms. At least once in six weeks he should have an X-ray examination of his chest. In old chronic disease the interval may be lengthened. With such a record the physician is in a position to judge the reaction of the patient to his disease and to modify treatment as needed.

Each patient is an individual and requires individual treatment. As a general rule, after the X-ray films have revealed a practically stationary lesion for several months, and there are no toxic symptoms. the patient may become partly ambulatory. Attention should be paid to the state of his nutrition, and he should avoid overheated stuffy rooms at all times.

Life in a sanatorium is much less exacting than life at home. To have attained an arrest of the disease in the sanatorium does not mean that the arrest will continue under adverse environmental and nutritional conditions outside.

(Continued on page xxiv)



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TUBERCULOSIS ABSTRACTS

(Continued from page 48)

Essentially, tuberculosis is a chronic disease; in such a disease education in how to live with it and remain well is of extreme importance. Continuous readjustments should be made by a physician who knows the picture as a whole. To be successful, the treatment of tuberculosis must go on long after discharge from the sanatorium.

What the sanatorium does or can do for a patient is briefly outlined because postsanatorium care and complete rehabilitation are but an extension of the sanatorium activities. Vigilance should be the keynote of this extended period, vigilance on the part of the patient and on the part of his physician.

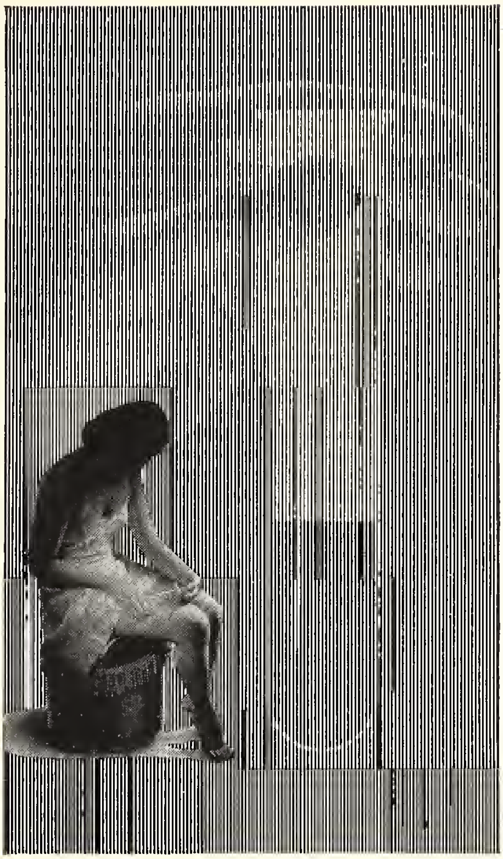
One can give no fixed procedure for subsequent observations of the discharged sanatorium patient. For those whose disease is arrested an X-ray examination every six months for two years probably would be sufficient, providing the patient feels well and has no symptoms. Those discharged as apparently arrested probably should have X-ray examinations every three months for one year and after that at longer intervals if all goes well. At the time the X-ray examination is made there should be a consultation with the tuberculosis physician during which advisable adjustments in the routine of the patient may be recommended.

For many years the Trudeau Sanatorium has made an effort to find out what happens to its discharged patients. Once each year, in the anniversary month of his discharge, the patient is sent a blank to fill in. In addition to a request for notice of change in address the patient is asked about his health in detail, his work and his earning capacity. This inquiry reminds the patient of the importance of a check-up of his condition. Replies are received from about 90% of former patients.

In this institution the sanatorium staff is always glad to advise the patient when requested and they welcome opportunities to cooperate with outside physicians. The staff gladly examines the patient's chest films at the request of his physician and he is told that he may return to the sanatorium at any time for a check-up. Such a check-up affords an opportunity for the attending physician to utilize the specialized services of the sanatorium staff which is more important if he is not specially trained in tuberculosis. It is the essence of teamwork that the physician attending the patient be kept fully informed about the findings and recommendations of the sanatorium staff.

The treatment of tuberculosis should be carried on over many years, even if there has been an apparent restoration of health. A knowledge of tuberculosis and its many and varied behaviors is needed by him who would carry out such treatment with skill. It must be recognized that in all cases the X-ray gives the most accurate estimate of what is going on in the lungs. The sanatorium lays the preliminary groundwork in education and provides satisfactory environmental and nutritional standards, but the treatment must go on long after the patient has been discharged. Prevention of relapse is of greater importance than treatment after relapse has occurred.

The Importance of Postsanatorium Care of the Tuberculous, Fred H. Heise, M.D., American Review of Tuberculosis, October-November, 1946.



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CONTAMINATED MILK IS POSSIBLE SOURCE OF INFANTILE PARALYSIS EPIDEMIC

Investigation of an oubreak of infantile paralysis which occurred at a West Coast naval training school involving over 100 persons, pointed to food, probably milk contaminated by flies, as the common source of infection.

The investigators writing in The Journal of the American Medical Association, are: Lieut. Col. David M. Goldstein, M.C., Army of the United States; W. McD. Hammon, M.D., Dr. P.H., from the George Williams Hooper Foundation, University of California, San Francisco, and Henry R. Viets, M.D., lecturer on neurology, Harvard Medical School, Boston.

Within an eight day period, beginning the first week of September, 1943, 18 cases of poliomyelitis were diagnosed with at least 100 persons showing milder infections. The authors noted that in one half of the 18 cases paralysis, either moderate or severe, developed. Polioencephalitis is an inflammatory disease of the gray substance of the brain which may paralyze the muscles supplied by the brain, neck and chest nerves.

Eliminating other possible sources of contamination the authors say that although "a few cases of podliomyelitis had been reported in the town during the summer months, the rates were lower than in many other areas in the state.

"The only common contributing factors in the outbreak appeared to be the residence in the school, the use of soft drinks (principally milk shakes) at the school's fountain and the eating of meals at the mess hall," the article states.

"Flies were found present in great numbers, both in and out of the building. Many were present in the barracks, but the number was excessive in the mess hall and the milk barn.

"Milk from the milking machines in the barn passed directly through cooling coils into a funnel with a cloth diaphragm. On this cloth, at the time of our inspection, numerous flies were being rinsed with a stream of milk. Open, steam sterilized milk cans into which the milk from the funnel was run contained many living flies, and drowned flies were in the condensed steam at the bottom."

The authors conclude that "since the possibility of milk borne epidemics of poliomyelitis has been suggested by other investigators, and since the present outbreak contained somewhat similar characteristics of rapid onset and milk contaminated with flies as a probable common source of infection, it was highly suggestive that we were dealing with a milk borne epidemic. Since flies have been found repeatedly contaminated with poliomyelitis virus, this source of contamination seems quite possible."

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SAVING BONDS

In the Early Recognition of Protein Deficiency

Unsupervised dietary curtailment and self-imposed food restrictions, not infrequently observed in elderly patients and in those desirous of preventing weight gain or losing weight, are apt to lead to multiple nutritional derangements. Not the least important among these, and often overlooked, is protein deficiency.

The early symptoms of chronic protein deficiency are vague and lack specificity. Thus they escape detection unless pointedly looked for. Easy fatigability, loss of weight, anorexia, malaise. and a slight pallor due to underlying secondary anemia constitute the most common complaints. A careful history of eating habits usually discloses the true significance of these symptoms.

Detection of the earliest objective sign of protein deficiency—negative nitrogen balance—requires hospitalization for several days, in order that nitrogen intake and excretion can be accurately determined.

Prolonged protein deficiency leads to hypoproteinemia, and is readily recognized by generalized edema and by a serum protein level below the normal 7 to 8 Gm. per 100 cc.

The most dependable and effective means of preventing and correcting protein deficiency is through proper organization of the diet. The recommended intake of 1 Gm. of protein per Kg. of body weight insures nitrogen balance in normal persons. For correction of frank protein deficiency, at least 2 Gm. per Kg. of body weight—and frequently considerably more—is required.

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NATIONAL FOUNDATION'S STORY OF SERVICE, 1946

(Continued from page 31)

gage a home, cash an insurance policy, sacrifice sending a child to school or otherwise upset its normal economy of living. We believe that the presence of polio in a family is sacrifice enough.

It is in time of epidemic emergency that the story and strength of the National Foundation and its Chapters are most vividly realized. Thus far this year we have seen more than 21,000 polio cases in our second worst epidemic. The year 1946 rounds out a four-year period in which more than 65,000 persons have been stricken, 30,000 more cases than have been recorded in any other four-year period in our history. The 1946 epidemic began in Florida and Texas and then struck the states of the northern Mississippi Valley with full force. The National Foundation was able to cope with this widespread outbreak because it is the sum total of Chapters throughout the nation. It thus was able to provide all funds that were necessary, mobilize personnel from all corners of the country and transport every type of needed equipment to stricken areas.

As 1947 approaches, the record of 1946 provides a real challenge. The horizons of research and education are widening, and—with the end of the war—a great new reservoir of eager young men and women are waiting impatiently to enter these fields and test their skills. Epidemics are unpredictable as to locality or size, but whatever emergency lies ahead, a tested organization, strong and flexible, will be ready to perform an even better job.

The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, February, 1947 No. 2

EDITORIAL

DUES

On page 85 in this issue of the Journal is a table showing the dues paid by members in the various state medical societies of the United States. We publish it for two reasons (a) posterity; (b) for practical comparisons. There are undoubtedly physicians in every county and in every state who look with nostalgia on the days when state association dues were two or perhaps five dollars per year. Assertions are made at times that the functioning of our Association is no different today than it was in the early part of this century when state dues were two dollars. Some maintain that the overhead of the Association connected with maintenance of an office and personnel is the greatest factor which necessitates constantly increasing annual dues. It is obvious that any institution which lays claim to serving the public on an organization level requires funds with which to operate. Those who longingly look backwards to the days when the functions of a state medical association were limited to arrangement of scientific programs and the annual election of officers overlook the role which a modern medical association has to play in a community. The protection of public interest and the preservation of the dignity and decorum of the profession require modern methods in public relationship.

As will be seen from the table while a few state medical associations have remained in the five dollar and seven dollar categories, the majority fall into a higher dues bracket. How much useful activity can be achieved by a medical association without the maintenance of an office must be left to the individual reader to conclude. States where the dues are low obviously cannot assume functions which in all likelihood would enhance their importance in the commonwealth. We see also that some of the states which are willing to broaden their activities have put into effect assessments to cover expenditures to carry on newly acquired functions.

These remarks are not to be taken as an apology for the prevailing fifteen dollars Nebraska state dues. We do not believe that the House of Delegates in establishing this figure needs to offer apologies. The dues are not out of line with the role which the Nebraska State Medical Association is playing in the welfare of the State. We believe that the returns on the small investment are better than anyone could expect in terms of service which the Association affords to the citizens of Nebraska generally or to the members individually. It is a well known fact that other groups, particularly in the commercial fields look upon our dues as ridiculously low.

We wish to emphasize these points at this time because we find ourselves in an era which stresses good public relations. Without going into a discussion of its specific benefits, we call attention to the many industrial institutions which annually spend millions of dollars in acquainting the people with the goods or services offered for public consumption. Medicine as a service needs few if any selling points. Medicine as a profession, however, must, if it is to survive on a level of individual private enterprise, take the public into confidence on the problems involved in rendering medical service to a large and demanding clientele.

We pointed out recently that the 80th Congress may afford us a breathing spell in which to avoid socialization of our service. The most effective method of avoiding such a possible calamity is through public confidence which may be gained only through a close and honest relationship with our people. To convince them of our just cause it is necessary to keep them informed of problems in the scientific and social phases of medicine. Need we add that it is only through organization that the task can be successfully accomplished? Present dues are low indeed when measured in dividends of good public relations.

A COUNCIL ON THE HANDICAPPED CHILD

In line with our two preceding editorials on statewide needs and activities in the field of health, this month we call attention to the multiple programs now in operation to aid the handicapped child. Actually how many organizations, civic, charitable, governmental, officially or unofficially are engaged in minor or major efforts in this category is difficult to even estimate let alone determine accurately. Nor is it important to arrive at exact numbers even if it were possible. The definition of the term "handicapped" in itself is subject to innumerable interpretations based on personal reactions, and it would serve no useful purpose to indulge here in academic quibbling or in philosophical speculation. The fact is that at the present time many groups are exhibiting a practical and active interest in the child who by convention is considered physically handicapped. To be sure, one can hear from time to time, if one is willing and knows just when to strain his auditory apparatus, a mild echo on the mental and emotional needs of the child, but the predominating effort remains centered around the youngster who is visibly at a disadvantage among his fellows.

These remarks are in no manner intended as criticism of the individuals or the groups they represent. On the contrary, we are in sympathy with their aims and we commend them for their efforts. They have done, and let us hope they will continue to do, a marvelous job in rehabilitating many, many children who, but for the help of these fraternal orders, noon-day clubs, and other civic minded organizations would have had little to look forward to. The work of The Society for Crippled Children, the Elks Club, the National Foundation for Infantile Paralysis, and many other groups with similar functions have brought the problem of the crippled child into the limelight thus stimulating public interest, and the allotment of public funds for the alleviation of his misfortune.

The Crippled Children's Service, a State agency which operates on partially matched funds from the Children's Bureau of the U. S. Department of Labor since its inauguration in 1936 has been slowly widening its scope. Designed originally to care for the orthopedically deformed child, it now includes the rheumatic fever program, and in addition offers diagnostic facilities for many other conditions to children in the various clinics held periodically in different sections of the state.

The combined annual expenditures in behalf of the handicapped child in Nebraska is obviously difficult to approximate, interesting and useful though such information may be. That there are innumerable duplications of effort and overlapping of activity is an inescapable conclusion in view of the total lack of coordination of these organizational functions and their monetary contributions. It is logical to assume that pooling of funds under a unified, well coordinated plan would afford greater economy and wider distribution of these services. It was this reasoning that recently prompted Dean Harold Lueth of the University of Nebraska Medical College to suggest the feasibility of a Council on the Handicapped Child made up of representatives of civic and governmental agencies with the purpose of studying and coordinating all of the funds and activities designed to improve the burden of these handicapped children.

To us the suggestion is well taken. We are confident that it will receive the endorsement of the medical profession throughout the State.

HEART DISEASE STILL LEADS AS CAUSE OF DEATH AMONG DOCTORS

Death claimed approximately 3,558 physicians during 1946 as compared with 4,015 the previous year, according to the January 11 issue of The Journal of the American Medical Association.

On the basis of an analysis of 3,358 obituaries published in The Journal during the year, it was found that the average age at death was 66.1 as compared with 65.3 in 1945. The majority of the physicians—584—died between the ages of 70 and 74, the same age group that was dominant in 1945.

Heart disease remains the leading cause of death among physicians. Coronary thrombosis and occlusion accounted for 738 deaths (655 in 1945), 283 occurring between the

(Continued on page 52)

PRESIDENT EARLE G. JOHNSON
Grand Island

I note with satisfaction that most of our county medical societies and all of our district societies have gone back to meetings on pre-war levels. I should like to urge the members to devote as much time as is possible to a study of sociological problems affecting medicine in order that all of us may gain a comprehension as to public needs, and at the same time make an effort to provide for these needs in accordance with our ability.

Again I should like to make it known to Medical Societies that my time is theirs if they should like to have me present at any given meeting.

EARLE G. JOHNSON, M.D.,
President.

ages 60 and 69. Cerebral hemorrhage, thrombosis and embolism accounted for 404 deaths; cancer and tumors were responsible for 352 deaths and pneumonia for 199. Tuberculosis caused 31 deaths, asthma 10, bronchitis and pleurisy five, and other diseases of the respiratory system 31.

The Journal finds significant the total of 55 suicides as compared with the 25 recorded for 1945. Twenty-four were the result of bullet wounds, nine of drugs and five each of cut arteries and poison. There were 130 accidental deaths, 55 of which involved automobiles.

One automobile accident occurred in a collision with a train and one with a street car. Four deaths were attributed to x-ray accidents and complications. Of the unusual accidents one physician was killed by a bolt of lightning while playing golf, one died of injuries received when he fell under the wheels of a mule drawn wagon, one when a tractor he was driving overturned and one when a power cable wire struck him over the head; one died in a Chicago hotel fire.

Among the decedents were 274 who had been teachers in medical schools, of whom 122 had reached professorial status. There were seven deans, one president of a high school, one vice president of a medical school, one teacher in a public school and 122 members of education boards. One hundred and sixty-nine had been health officers, 108 members of boards of health, 67 coroners, 51 mayors, 31 authors, 29 members of medical examining boards, 27 bank presidents, 27 legislators, 26 pharmacists, 16 editors, 12 missionaries, eight dentists, seven postmasters, four lawyers and three interns.

Decedents included a vice president of the American Medical Association, one charter member of a council, four chairmen of councils and 13 section officers. Thirty-four had been members of the House of Delegates and one Speaker of the House. There were 35 presidents of state medical societies, four secretaries of state societies and 216 who had been presidents of county medical societies.

The 3,358 Journal obituaries included 40 physicians who were killed in action during World War II and 128 who died while in military service. A number of those who were killed in action had first been reported missing in action. Eight physicians lost their lives in the Asiatic area, seven in the Philippine Islands, six in the China Sea, five in Germany, five in the Pacific area, two in Italy, two in France and one each in Formosa, Luzon, North African area, Okinawa and Tinian. Nine were reported as prisoners of war.

Of the 128 physicians who died while in military service, coronary thrombosis caused 19 of the 29 deaths attributed to various forms of heart disease. Airplane accidents caused 16 deaths and automobile accidents nine. Cancer was responsible for 10 deaths, three of which were brain tumors. The remaining deaths were from miscellaneous causes.

The 40 deaths classified as killed in action give an average age of 35.2, while the average for the 128 who died while in military service is 42.8. Combining the two, an average of 37.7 is recorded.

Since the outbreak of World War II on Dec. 7, 1941 The Journal has recorded the deaths of 257 physicians who were killed in action and 501 who died while in military service. Reports still being received by The Journal indicate that the aggregate total of 758 military deaths among physicians will be greatly augmented when the complete statistics are made available through official military channels.

TREAT DISEASED BONE WITH PENICILLIN

In the future penicillin treatment of osteomyelitis, an inflammation of the bone and marrow, will eliminate in some cases the marring and mutilation resulting from surgery, according to two investigators writing in The Journal of the American Medical Association.

Edwin J. Grace, M.D., from the Grace Clinic, Brooklyn, and Vernon Bryson, Ph.D., from the Biological Laboratory, Cold Spring Harbor, N. Y., say that the treatment consists of hospitalizing the patient for 10 days during which injections of penicillin are administered every three hours, day and night, into the cavity which leads to the infected area of bone and into the muscles.

Certain measures must be taken, however, before this type of therapy can be employed, the authors state. The patients must have a complete physical examination with correction of any obvious deficiencies such as anemia or focal infections such as tonsillitis. Bad teeth must be extracted and cavities filled.

Of the seven chronic osteomyelitis patients who received this treatment, only one failed to respond. These patients had previously undergone a total of 91 operations without cure.

Evaluation of the Fenestration Operation in Otosclerosis*

SAMUEL J. KOPETZKY, M.D., F.A.C.S.
From the Department of Otolaryngology, New York Polyclinic Medical School and Hospital

Enough time has elapsed during which many thousands of persons, suffering from deafness, have been submitted to the revived operation of fenestrating the osseous labyrinth to produce increased hearing acuity. It seems appropriate to attempt an evaluation of the operation, and form an estimate of its place in our practice.

In making this estimate, it is important that certain pertinent factors be taken into consideration. In the first place, it is not sufficient to list score boards of so-called successes and failures of the surgical technic, but to try, with the material which has been published, to form an opinion of the types of cases which have been submitted to surgery, and then estimate its successes against the background of its failures. It is also pertinent to take into consideration the condition of the thousands upon which the operation was performed, and note the post-operative condition in which they find themselves.

Fenestration of the osseous labyrinth to improve hearing acuity in otosclerosis is no new concept. It was tried before. Then the operation entailed extraction of the stapes to open the ossified oval window. After a period of trial the profession discarded the operation.

Many thousands of deafened persons have undergone this operation during the last eight years. It was originated two decades ago by Passow, Barany, Jenkins and others. Stimulated by the work of Holmgren, and the technical advantages devised by Sourdille, our more recent literature (and unfortunately the public press) has been full of reports of technical developments along purely mechanical lines. These developments are based upon a theory stated many years ago by Albert Gray of Glasgow, which may be paraphrased as follows:—Most deafened persons have not lost the faculty of hearing but have developed a mechanical obstruction to the adequate transmission of sound wave impulses to the divers perceptive and interpretative centers of the internal ear and brain.

The finer detailed improvements in the surgical technic and the compression of the three-stage operation of Sourdille into a one-stage procedure as devised by Lempert have actually merely shown that the fenestration operation is practicable and not too dangerous to the patient.

Recently the publications of Kenneth Day, and Shambaugh and Juers, take us a step further in progress. Day's paper reports a conservative number of carefully selected cases, thoroughly studied pre-operatively, with operative findings, especially as to a determination as to stapes fixation. In Shambaugh and Juers' publication, reports are perceivable of consideration given to biochemical tissue reaction in regard to the after-effects of these upon the flap covering the fenestration, and recommendations to combat the outflow of histamine substances which tend to prevent desirable end-results. These writers discuss the role of coagulated blood elements in the tympanic cavity and their deleterious end-effects, and they present an excellent study based upon animal experiments in appreciation of factors concerned with osteogenesis, because all concerned with the fenestration operation have heretofore laid their failures from this surgery to the reformation of bone in the newly-made fenestra. Another contribution should be noted. A positive fistula reaction does not necessarily mean that the fenestra has remained patent. My experience has been the same as theirs from the small number of cases upon which I operated, and I agree with their premise that irrespective of obtaining a positive fistula reaction, the maintenance of a newly acquired hearing acuity, and not the positive fistula reaction, is the only criterion upon which to catalogue a given success (See Chart I).

Two other factors seem to have been neglected, for they are not mentioned in recent reports of the results of the fenestration operation. The first is that this type of surgery does not cure the patient of the pathological lesion which created the obstacle to sound wave transmission which the operation seeks to bypass. Hence the progressive development of the pathological entity will continue in the postoperative period. This will be ob-

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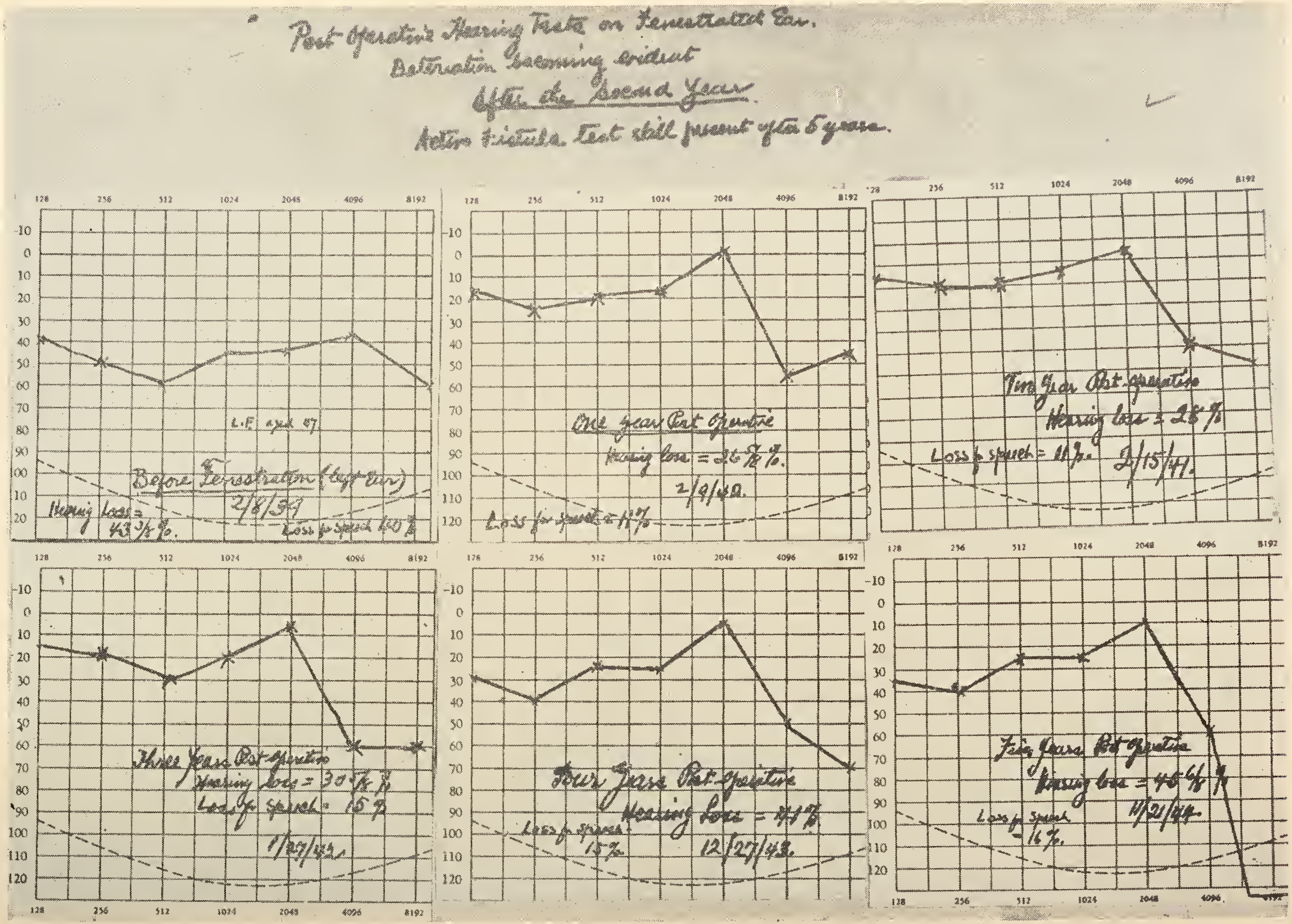
CHART I


Post-Operative Hearing Tests on Fenestrated Ear.
Deterioration becoming evident
After the Second Year.
Active Fistula Test still present after 5 years.
128
256
512
1024
2048
4096
8192
-10
0
10
20
30
40
50
60
70
80
90
100
110
120
L.F. age 37
Before Fenestration (left ear)
2/8/39
Hearing Loss = 43 3/8 %.
Loss for Speech 40 %
One year Post Operative
Hearing loss = 26 7/8 %.
2/9/40.
Loss for speech = 11%
Two Year Post-operative
Hearing loss = 28 %
Loss for speech = 11%.
2/15/41.
Three Years Post-operative
Hearing loss = 30 5/8 %
Loss for speech = 15 %
1/27/42.
Four Years Post-operative
Hearing loss = 41 %
Loss for speech 15%
12/27/43.
Five Years Post-operative
Hearing loss = 45 6/8 %
11/21/44.
Loss for Speech = 16 %.

vious in the longer postoperative time wherein there will be noted a loss of hearing, the time element involved extending beyond two years, and this will become increasingly important as we study in the ensuing years the end-results of the thousands of fenestrations already performed.

PATHOLOGY AROUND THE ROUND WINDOW

The second factor to which I refer concerns the condition of the round window. Most of the published reports comprising both successes and failures fail to tell us of the condition found at the round window. Our earlier literature (circa 1890) was full of reports of stapes extraction as an operation to improve hearing, where stapes fixation, as part of the lesion of otosclerosis, was thought to be the mechanical obstacle causing the loss of hearing. There are many autopsy reports on record and Gruenert's are typical of most of them. From his study of otosclerotic lesions Gruenert(1) declares that the presence of a normally functioning round window is essential for the improvement of hearing through the removal of an ankylosed stapes. In his material, two-thirds of the cases of stapes fixation showed pathology about the round window capable of impairing or preventing a displacement of the labyrinthine fluid even when the stapes is removed.

We can translate the phrase "displacement of labyrinthine fluids" into our modern concepts of sound wave perception by Corti's organ, but the pathological finding remains factual.

I venture the premise that where actual pathology is found in ears deafened by an otosclerotic lesion involving the ossicular chain, and particularly involving the footplate of the stapes, that the same percentage of round window involvement will be found in cases fenestrated to alleviate deafness because they suffer from otosclerosis.

Those studying the reasons for the failure from this procedure have not taken into account the fact that this pathology has been a cause for many of the failures of the recent fenestration operation. If Gruenert's pathological studies and review of the literature are correct, and if the pre-operative diagnosis of some of our surgeons is also correct, then it follows that two-thirds of all cases of otosclerosis are doomed to eventual failure when operated upon.

FREQUENCY OF BEZOLD'S TRIAD

A review of some of the clinical aspects of otosclerosis might be helpful inasmuch as fenestration of the osseous labyrinth is not a new concept. Otosclerosis has been held to be clinically undiagnosable except as an assumption. According to Bezold, the clinical diagnosis was held as established upon a basis of a triad of factors. These are:

1. A raised lower tone limit above the 64 DVP level;
2. Prolonged bone conduction over air conduction; and
3. A positive family history of progressive deafness in blood relatives.

In a recent re-check of these factors in 200 ears from a random selection of case histories of deafness from my files, taken in alphabetical order (all of which gave audiometric and tuning fork tests evidencing progression in hearing loss), the raised lower tone limit was found in 102, or 51%. Prolonged bone conduction was found in 46 or 23%, and the family history was positive in only 42. It was proven negative in 36 and equivocal or not recorded in 22. A sum of all these three factors was not present in the majority of the case histories.

FREQUENCY OF HOLMGREN'S CRITERIA

Holmgren(2) in cases of otosclerosis involving stapes fixation, in an attempt to provide additional clinical data upon which to make the determination of stapes fixation, proposed that a test of the mobility of the ossicular chain be made using pressure and suction on the membrana tympani while visualizing it through a Bruning precision Siegleotoscope, and noting among other things the excursions of the drumhead in whole or in any of its segments, and the movement of the hammer handle. The increase in vascularity about the hammer handle during these procedures is a vascular reflex. Furthermore, Holmgren's premise implies that the condition of the skin lining the external auditory canal is also pertinent. Where the canal is wide and the skin has little subcutaneous tissue, and a drumhead which under the impulse of compression and suction, moves mostly in its posterior-superior quadrant, and which furthermore shows a vascular dilator reflex either absent or too slow in forming, and with a hammer handle which does not move freely, a case presenting these factors on otological examination may be assumed to have factors permitting a diagnosis of otosclerosis, history and functional hearing tests substantiating same.

I have used this test routinely since its publication. I find the following in checking my records of a sampling of 100 cases:

In 52 cases the canal was wide with atrophic subcutaneous tissue; in 34 it was narrow with normal subcutaneous tissue; and in 14 no abnormality was noted.

In 56 the posterior-superior segment of the drumhead was most movable; in 36 the entire drum membrane moved freely and in the remainder of the case histories there is no record as to this factor.

In 39 the ossicular chain showed inhibited movement; in 61 the ossicles were freely movable.

In 52 the vascular reflex was normal, in 32 it was slow, and in 14 totally absent. Grouping the absent reflex and the ones which were slow showed 46 having an abnormal vascular reflex. No notation is found on the histories in the rest.

When Bezold's triad and the Holmgren data are used together in the sample case histories, approximately 55% give histories indicating the probable presence of otosclerosis. However, to me it does not seem very practical to use these criteria because many of the patients who gave positive data according to Holmgren's standard failed in one or more of the factors comprised in Bezold's triad. Judging by these standards the incidence of otosclerosis in deafened persons, one cannot escape the conclusion that, although those reporting on this operation used the pathological diagnosis of otosclerosis as the lesion for which they operated, it would seem that this diagnosis was hardly warranted in many of them.

RATIONALIZED DIAGNOSIS AS AN INDICATION FOR FENESTRATION

Probably many have gone to the operating room under the rationalized diagnosis of clinical otosclerosis simply because of this inability to make a diagnosis of otosclerosis as an indication for fenestration. Some of these I have examined and found to have no fixation of the stapes by any criteria at my command. Additionally some of these made further hearing gains of practical import under medical therapy. This was true where I disagreed as to the necessity of the proposed fenestration operation in the given case.

It seems apparent, from cases which I have had the chance to examine, some of whom had the operation recommended to them strongly, and others to whom the odds in favor and against success were quoted for them to take the chance, the surgeon being willing to perform it for them, that the diagnosis of clinical otosclerosis means many different things to different otologists. There is no clear cut set of symptoms, history, otoscopic and functional findings upon which to classify patients as suffering from clinical otosclerosis. Henry L. Williams(3) of the Mayo Clinic is on firm ground when he states "otosclerosis is a purely histologic diagnosis," but when he says that if the diagnosis is made on the living patient the term must be modified to read "clinical otosclerosis" he is vague, and fails to give the basic findings to warrant a term which has neither a clinical nor a pathological background. What are his criteria differentiating these cases from those heretofore catalogued as being in the otitis media chronic catarrhal group, and clinically having a demonstrable progressive loss of hearing, or from those who are presumed actually to be otosclerotics, having in mind the accepted pathology of otosclerosis. If clinical otosclerosis is to comprise those cases only where fixation of the stapes is clinically demonstrable, whether or not accompanied by other factual findings of ankylosis of the other joints of the ossicular chain, then one may assume that the underlying pathology for which the fenestration is undertaken comprises cases of actual otosclerosis which present themselves for therapy at that point in the evolution of their pathologic lesion, when it has not yet formed its characteristic calcium deposits at the round window, nor have the nerve lesions which are wont to be present in a fully developed case of otosclerosis as yet come into being. In other words the patient has otosclerosis, but the lesion is in its initial stage of development.

I doubt that of the thousands of cases operated for "clinical otosclerosis" that many of them would qualify as being in the initial stage of their lesion.

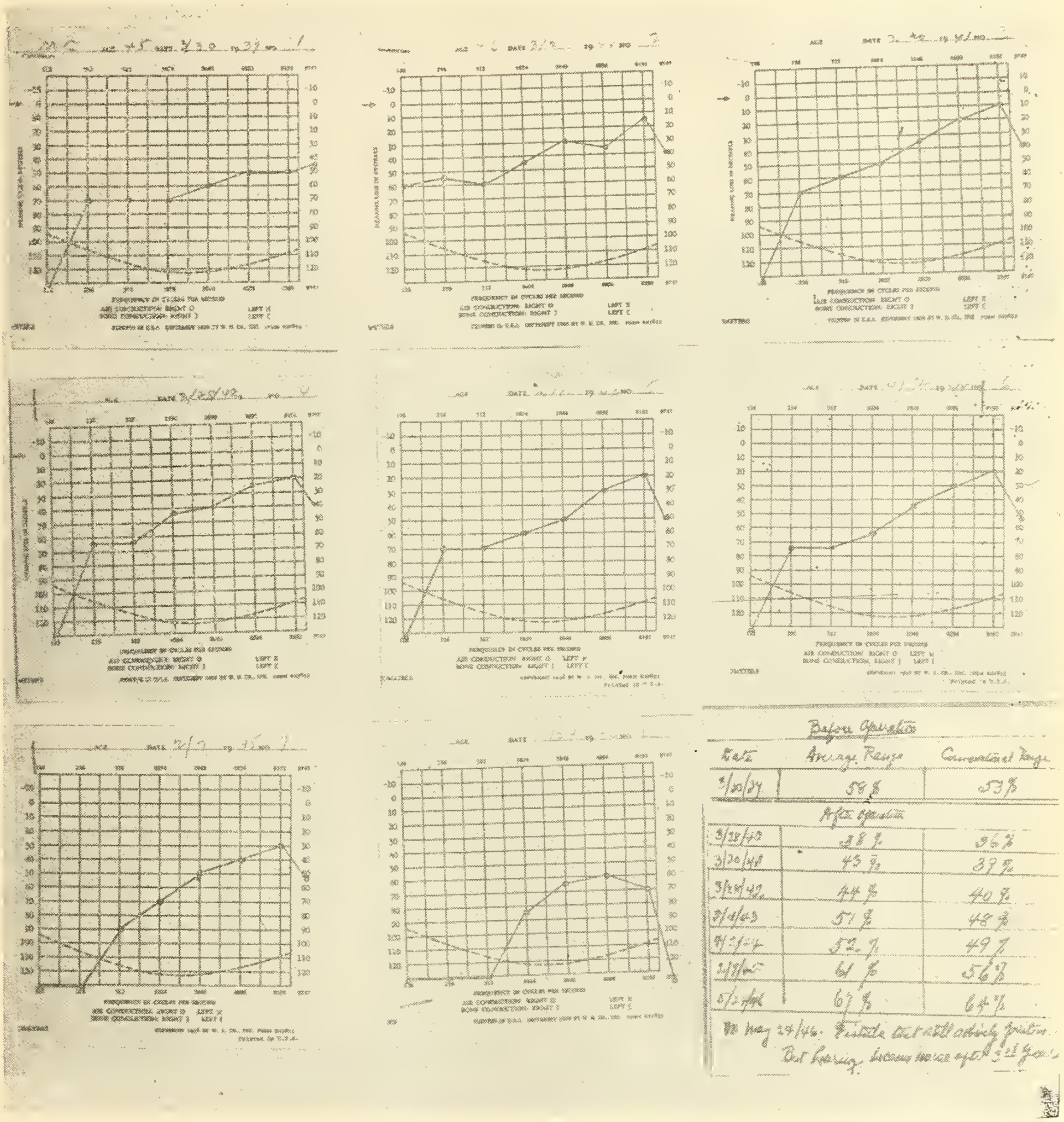
One more item needs clarification. In studying case reports from our literature showing preoperative audiometric charts, it is astonishing to note the paucity of classical curves of hearing losses such as we were wont to see accompanying a diagnosis of otosclerosis in the days before the fenestration operation was so popular. Such audiometric charts usually showed a curve with a drop in the low tone frequencies as well as in the high tones. This was particularly true where the deafness was of more than five years' duration with definite evidence of becoming progressively worse.

It appears, therefore, that many cases have been submitted to surgery who suffered no stapes fixation, or at least no proof of it is found in the published report of audiometric test records, pre-, or operative findings, excepting Kenneth Day's report on some of his operative findings

POST-FENESTRATION HEARING LOSS

Shambaugh sets a deadline of about two years, after which he believes osteogenesis ceases in fenestrated cases. Therefore he thinks that the operative hearing acuity may be expected to hold at the level found at the end of the second postoperative year. Since he also postulated that the pertinent factor of success of an operation rests upon maintenance of surgically acquired hearing gains and not on the finding of a positive fistula reaction, I was interested to review my three best results from fenestration performed longer than three years ago (See Charts I, II, and III). Chart I illustrates a case operated upon in 1938 which started to show evidence of deterioration during the third year and which has been progressive. The average audiometric hearing range is worse at the sixth year than before operation. The speech range loss, for practical purposes, is still better than before operation. Chart II shows both average range and speech loss becoming worse after the second year, both worse at the end of the seventh year. A positive fistula reaction is still obtained in patients whose records are shown in Charts I and II. The case illustrated in Chart III presents hearing loss for speech which is still better than before fenestration at the end of the seventh year, although indicating a gradual progressive deterioration. In this instance no active fistula reaction has been obtained

CHART II



Before Operation

Date	Average Range	Conversational Range
3/30/39	58%	53%

After Operation

Date	Average Range	Conversational Range
3/28/40	38%	36%
3/20/41	43%	37%
3/18/42	44%	40%
3/4/43	51%	48%
9/2/44	52%	49%
2/7/45	61%	56%
5/2/46	67%	64%

May 24/46. Fistula test still actively positive. But hearing became worse after 3rd year.

for the last five years. It was only obtainable for the first two years of the postoperative period.

CHART III

DATE	SPEECH LOSS	
September 7, 1938	24%	Pre-Operative
November 18, 1938	23%	Post-Operative
November 1939	8%	Post-Operative
November 1940	9%	Post-Operative
July 1941	11%	Post-Operative
July 1942	9%	Post-Operative
September 1944	12%	Post-Operative
May 1945	16%	Post-Operative

Female, age 22 at time of Fenestration Operation. The hearing has become worse, after the second year, post-operative. For practical purposes it is still better than before operation. No positive fistula reaction obtainable since July 1940.

Shambaugh and Juers'(4) improved technic and their report are impressive because first, it is intended only as a preliminary report, and, as he states, not as a finished or final product; secondly, based upon their animal experiments, their conclusion in regard to permanent maintenance of the operatively acquired hearing acuity establishes one factual observation, namely, that osteogenesis ceases and the newly acquired hearing may be regarded as an "almost certainly permanent" result after a two-year postoperative period. However, he qualifies this statement by a very pertinent foot-note which I quote: "This refers to the hearing defect due to otosclerotic ankylosis of the stapes, and not to subsequent (hearing) loss due to otosclerotic degeneration of the nerve, or to senile degeneration of the nerve, or other unrelated causes."

Since Shambaugh's report carries the title "Surgical Treatment of Otosclerosis," one may be permitted to include other obvious wonted pathological findings of otosclerosis in his exceptions, such as the usual pathology found at the round window in otosclerosis where otosclerotic nerve degeneration is present. One also wonders if such cases are counted among those excepted from these authors' statistics, and if they underwent operation, what was the reason for the surgery. Indeed it would be very interesting had Shambaugh made available the whole story and given the actual figures of the numbers concerned in his exceptions to the rule these authors postulate. Then perhaps we should find another factor substantiating the observations made by Gruenert(5) regarding fenestration of the labyrinth.

ANENT REPORTED RESULTS

The many reports which have appeared in our medical journals have been totally unsatisfactory. They do not permit an overall summation to be made with actual figures showing successful operations on the one hand, and failures on the other. The reporting surgeons do not all perform the same operative technics. Obviously the patients' preoperative status also differs. The criteria establishing indications for the operation is also differently conceived by different surgeons.

Therefore when attempting to assemble figures embracing statements from a number of surgeons, one would be adding together neither similar technics, nor similar types of deafened patients. Not even the summation of the published success will stand critical study. Different surgeons who have reported on these fenestration operations have vastly different conceptions as to what constitutes a successful operation.

In many of the published reports one is constrained to admit, after closely studying them, that there is apparent a lack of scientific objectivity on the part of some of the reporting surgeons. We must remember that we are here concerned with an operative procedure to ameliorate a symptom, not to cure a disease, and reports of technical successes, of no particular value to the patient whose symptom of deafness the operation seeks to lessen, should be classified as failures, not as technical successes.

An operation to lessen deafness, to be a success, must result in practical, useful hearing acuity which should be permanent. Scanning all published reports that I could lay my hands on, it seems to me, at the present status of our knowledge, that the majority of patients submitted to the operation do not gain by it in the long run. I say this, despite the reports of high percentages of successes recorded in some of our journals from the pens of operating surgeons.

Despite the thousands who have undergone the fenestration operation, its ultimate place in our practice is by no means settled by the statistics with which we have been supplied. To permit acceptance of this procedure as having a permanent place in our therapy we must have a closer study of these statistics, and particularly a thoughtful review of the criteria upon which the surgery is predicated in each instance, in order to clarify our thinking and to provide factual data in addition to figures.

POST-FENESTRATION PSYCHIATRIC SHOCK

I have emphasized, in all my contributions to the literature on the fenestration operation, that this surgery should be given a continued trial. But the patients submitted to the operation should be told the truth regarding its prospects for success and not be permitted to draw their own inferences from statistics which are quoted to them.

One surgeon's failures after fenestration operations are quite likely to be taken to another otologist. I have examined a number of such patients. Many are bitterly disappointed and show varying degrees of nervous and mental instability. In some cases, the mental imbalance was actually started by the otologist who, in the first instance, prepared the patient to accept the fenestration operation. Here the otologist not only stressed to the patient his diagnosis of the ear condition as otosclerosis, but added to the gravity which this diagnosis implies to the lay mind, his opinion of the inevitability of the patient becoming extremely deafened, soon, or as some of them told me, they were informed they would soon become "stone deaf." These arguments were used as a fulcrum to bring the patient to operation, as the only means to prevent the impending tragedy befalling him! The operation was undertaken, sometimes re-operation also, and it failed.

As often as seven out of ten times the patient comes to the otologist asking for the fenestration operation. The unfortunate type of publicity which has attended the development of this method has unduly impressed these people; then again there are those whose friends recently have been submitted to fenestration surgery. They are deafened, and naturally, they are tremendously impressed by the newly acquired hearing acuity of their deafened friends. They are in complete ignorance of the transitory character of their newly acquired hearing improvement. They assume that it is a permanent result from surgery, and were they to submit themselves to a similar operation, they, too, will have improved hearing. Unfortunately they plunge into the surgical procedures long before many of their friends enter the postoperative stage, when the hearing begins to recede. Unhappily for us, the otologist to whom they apply as willing and wanting a fenestration, too often does not tell them the whole truth regarding the future status of the operated patient. He quotes them statistics and being in an optimistic mood created by their circle of friends and those who have already taken the risk, they gamble on the outcome, helped by an otologist avid for another fenestration operation, of whose eventual outcome his statistics are no real criteria because he has no method whatsoever of determining into which category—success or failure—this particular patient's case will fall.

Some patients do not fall into this classification as they accept the failure of this operation. They are satisfied because they believe they have tried everything and exhausted all medical resources in the attempt to ameliorate their hearing loss. Aside from these exceptions, however, the situation of the others is different and occasionally tragic.

Having lived in high hopes during the early postoperative period, thereafter having endured not only the loss of the operatively acquired hearing, they find themselves often more deafened than before operation. These are the ones who suffer nervous breakdowns. The psychiatric shock is comprehensible.

CONCLUSIONS

1. Patients who are to be submitted to the fenestration operation should be told the whole truth regarding the uncertainty of predicting the outcome on their hearing acuity. They should not be misled by having statistical figures quoted to them, for there is no known means by which the patient or his surgeon can truthfully tell whether a given case will be a success or a failure.

2. Too many cases with a rationalized diagnosis of "clinical otosclerosis" are being submitted to the fenestration operation before medical therapy has been exhausted.

3. When the operation is undertaken upon actual cases of otosclerosis, it would seem from the pathology of this disease, that only about a third of them could benefit by surgery, because in two-thirds of otosclerotics, the round window and the acoustic nerve are involved in the lesion in addition to the stapes and oval window.

4. In otosclerotics, and even in the so-called "clinical otosclerosis," a longer period than two years post-operative will become increasingly necessary before finally determining whether or not further evolution of the

otosclerotic lesion will not inevitably bring with it further deterioration in hearing.

5. The criteria to establish a diagnosis of "clinical otosclerosis" needs clarification and fixity of diagnostic data. This diagnosis should not loosely be ascribed to a patient who has a progressive deafness.

6. As a procedure in otologic surgery, the fenestration operation has a place. Its technical advantages are established. The risks to the patient are obvious but not too great if it can be established unequivocally that it is a valuable means of improving a symptom—deafness. This latter question is, at this time, still very much unsettled.

The operation must still be classified as in the evolutionary stage. With some exceptions, most of the reporting surgeons concede this in their reports. Therefore it should only be recommended to patients with the utmost caution, only after serious consideration of the type of disease which causes the patient dysfunction of the hearing apparatus, with its dominant symptom of deafness. Neither should the operation be advised, until every known medical, non-surgical therapeutic measure has been exhausted. The repetition of the operative procedures in vast numbers simply multiplies the numbers of failures, but adds little to establishing the value of the operation.

7. The operation was originally devised by the pioneers in this field for the relief of deafness in otosclerosis. A knowledge of the pathology of otosclerosis indicates that it is effective only when the otosclerotic lesion is in its initial stage of development before the round window becomes involved.

8. Great care should be exercised to eliminate from submission to this operation all cases, euphemistically diagnosed as "clinical otosclerosis," because (a) there is no means at present to differentiate this diagnosis from otosclerosis, and (b) such cases may be found to acquire just as much improvement in hearing acuity by non-surgical means, without entailing any risks whatsoever, as they would by the fenestration operation.

9. In view of the psychiatric shock, entailed by the frustration of expected results, a careful preoperative psychiatric examination of the individual should be undertaken, to eliminate postoperative psychiatric breakdowns. To aid in this, the campaigns in the public press, and over the radio, and the quotation of odds on the outcome of the surgery, based upon what I consider equivocal summations of results should not be given patients, and used as a fulcrum to bring them to operation.

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SUSCEPTIBLE PEOPLE AIDED BY IMMUNITY PRODUCING FLEA ANTIGEN

Flea antigen, a substance which produces immunity to flea bites, has benefited four out of five of the 129 susceptible infants and children treated on the West Coast, according to Alexander Hatoff, M.D., of Oakland, Calif.

Writing in The Journal of the American Medical Association, Dr. Hatoff, who is from the Department of Pediatrics of the Permanente Foundation Hospitals, says that the beneficial results consisted in a smaller size and shorter duration of the wheal and the decrease of irritation and of itching.

The flea antigen consists of an extract of the whole fleas of cat, dog and human beings.

According to the report, the children's symptoms had continued unabated for a period of from one week to one year before treatment was begun. One hundred of the patients, or 78 per cent, were benefited. Six patients, or 5 per cent of the total, received a certain amount of benefit, and 23, or 17 per cent, failed to respond.

Dr. Hatoff states that in treating these patients, the average number of injections of flea antigen given was four. The average time of response following the initial injection was eight days.

In conclusion, the author says that the importance of this demonstration lies in the possibility that such a method might be used in conjunction with other measures for the control of insect borne diseases.

Some Problems in the Management of Cardiac Failure Among Elderly Patients*

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Until recently, the biologic problems of aging and many of the problems associated with the care of elderly patients have occupied a minor, and more or less academic, part in the practice of medicine. This, however, is no longer true. In the past fifty years, preventive medicine, sanitation and vastly improved pediatrics and medicine in general have increased dramatically the longevity of our population. Undoubtedly, a major factor has been the saving of younger lives by control of infectious diseases. In 1850, the average life expectancy at birth was forty years. In 1900, this had increased to forty-seven years. In 1930, life expectancy was about sixty years, and in 1940 the average life expectancy at birth was sixty-three years. In 1900, only 17 per cent of the total number of persons in the United States were forty-five years old or older; in 1940, the age of 26.5 per cent of the people exceeded forty-five years. Conservative speculation results in the estimate that by 1980 more than 40 per cent of the people in the United States will be more than forty-five years of age.[2] These figures will serve to stress the importance of placing more and more emphasis on the practice of geriatric medicine.

Unfortunately, many of the diseases associated with senescence are not amenable to cure. Rather, "controllative" therapy and retardation of progression must be the prime objectives. To no other group of patients do the foregoing statements apply as aptly as they do to patients suffering from cardiovascular renal disease. In the management of cardiovascular renal disease among younger persons, the physician can, in most cases, successfully treat the disease and ignore the patient; whereas, in the treatment of elderly patients with this type of disease, multiple and difficult problems may arise for two major reasons: (1) elderly patients may react differently to conventional methods of therapy than do younger patients, and (2) in diagnosis and treatment, the physician must consider the entire body and mind as an integrated unit.

In any discussion of cardiovascular renal disease, three organs must be considered to be the major targets for attack by the disease process: the brain, the heart and the kidneys. Arteriosclerosis and its effect on the circulation to the organ or organs in question undoubtedly heads the list of etiologic factors. However, essential hypertension, cardiac valvular defects on the basis of rheumatic endocarditis or syphilis, and chronic inflammatory lesions in the kidneys, such as glomerulonephritis or pyelonephritis, may be the causative factor. Nor is any one organ singled out as the seat of attack. In fact, because of the diffuse nature of the disease process, the physician almost invariably finds manifestations of involvement in two or more organs. The scope of cardiovascular renal disease is so broad that it is impossible to cover adequately the entire subject in a single discussion. Therefore, I have chosen to limit my remarks to some of the problems confronting the physician in the management of cardiac failure.

The chief underlying factor in the incidence of myocardial insufficiency in advanced age is sclerosis of the coronary arteries. Myocardial ischemia, with varying degrees of myocardial infarction and replacement fibrosis, is the actual change. With the exception of Adams-Stokes attacks, and the discomfort produced by abnormal cardiac rhythms, such as premature beats, paroxysmal tachycardia, and paroxysmal auricular fibrillation or flutter, the cardiac symptoms which most frequently bring the aging patient to the physician are the manifestations of heart failure. Although the usual types of heart disease tend to cause death before the patient has attained the age of sixty-five years, some patients who have rheumatic mitral or aortic valvular disease or syphilitic aortitis do attain old age. Essential hypertension frequently is an associated and complicating condition which adds to the load on the heart and increases the impairment of myocardial function. Not uncommonly, the clinical picture is rendered worse by the co-existence of advanced general or cerebral arteriosclerosis, pulmonary emphysema or fibrosis, impairment of renal function, diabetes mellitis or anemia.

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* Read before the Elkhorn Valley Medical Society, Norfolk, Nebraska, August 15, 1946.

In the care of the elderly patient with myocardial failure, sympathetic understanding of the physiologic and psychologic changes incident to senescence is essential. In the presence of natural involutional changes in the tissues throughout the body, added pathologic changes and the force of long-established habits, overenthusiastic therapeutic measures are likely to bring about more harm than benefit. In the administration of drugs, diminution of the customary adult dose usually is required, for the retardation of absorption and impairment of renal function often present in old age (and particularly in congestive heart failure) and increased capillary permeability attendant on cerebral arteriosclerosis all may predispose to toxic effects. Not infrequently, in failure of mild or moderate degree, the greatest benefit results from proper regulation of physical and mental activity and not from the use of drugs. In the adjustment of the patient to his diminished cardiac reserve, considerable ingenuity on the part of the physician often is required.

Of utmost importance is proper rest of body and mind. The amount of rest necessary depends on the degree of failure; it may vary from slight, moderate or strict limitation of physical activity to absolute rest in bed for weeks or months. Business and family responsibilities must be prohibited, and the number of visitors allowed should be kept at a minimum. As a rule, elderly patients are most content at home; but if conditions render it necessary, care in a nearby hospital may be indicated, and usually is agreeable to the patient.

Two associated symptoms extremely difficult to contend with in cardiac failure are restlessness and insomnia. Often, patients who have such symptoms will be rational and co-operative by day, but at night become restless, disoriented and agitated. In the acute stage of congestive failure, morphine sulfate alone or combined with atropine sulfate, may be required. Tincture of opium, in doses of 10 to 20 minims (0.61 to 1.23 c.c.) or 1-methyl 4-phenyl piperidine-4-carboxylic acid ethyl ester hydrochloride (demerol) may be used with beneficial sedative effect. In some cases codeine sulfate alone or in combination with one of the barbiturates is sufficient to control the patient's restlessness, pain or cough. In cases of mild failure, barbiturates or bromides may control restlessness and induce sleep, but caution should be exercised in their administration, for many patients react poorly to them. Chloral hydrate, one of the oldest and yet one of the least often used hypnotic agents, produces maximal benefit with a minimal number of untoward side effects, and its use should be considered in seeking a comfortable night for the patient. Paraldehyde, in doses of 2 to 4 drams (7.8 to 15.5 gm.), may prove efficacious. Frequently, when restlessness is due to episodes of paroxysmal dyspnea, hypertonic solution of glucose or aminophylline administered intravenously, or both, may quickly relieve the situation. The best sedative in a given case must be determined by trial and careful observation, and the danger of cumulative and toxic side-effects should be kept constantly in mind.

Next in importance to rest in the treatment of congestive heart failure is the administration of digitalis. The maximal benefit from digitalis arises from the improvement in circulatory efficiency by the direct action of the drug on the myocardium, and by its cardio-inhibitory effect, whereby the ventricular myocardium is afforded rest from the abnormally large number of impulses from the auricles. For the elderly patient the principle of administration of digitalis proposed by Withering in 1785 remains applicable, "Let it be continued until it acts either on the kidneys, the stomach, the pulse or the bowels; let it be stopped upon the first appearance of any one of these effects."[3] Every effort should be made to avoid symptoms of gastric distress or other symptoms of toxicity, and the patient should be watched closely for signs of overdigitalization, such as bradycardia, premature contractions, ventricular coupling or heart block. Other symptoms of intoxication with digitalis may be blurring of vision, disturbance of color vision, diarrhea, oliguria and mental confusion. Elderly patients, as a rule, tolerate digitalis much more poorly than do younger persons, and may require smaller digitalizing and maintenance doses. In general, one cat unit per 10 pounds of body weight will digitalize the patient, with one cat unit daily as a maintenance dose.

Although digitalis tends to eliminate excess stores of fluid in the lungs, liver and subcutaneous tissues by its ability to improve the efficiency of the myocardium and the circulation in general, diuretic agents play an important role in enhancing the elimination of edema fluid. The xanthine drugs may be helpful, not only in their capacity as vasodilators, but also for their diuretic effect. However, the greatest benefit in this regard comes from the use of acid salt diuretic agents, such as ammonium chloride and ammonium nitrate, or potassium chloride and potassium nitrate, in doses of from 60 to 135 grains (4 to 8.8 gm.) daily. Caution must be exercised in the use of these drugs in the presence of significant renal insufficiency, and if they are used under such circumstances, the possibility of acidosis, increasing renal insufficiency, or potassium intoxication due to the inability of the damaged kidney to excrete potassium normally must be borne in mind. Furthermore, acid salt diuretic agents, particularly ammonium or potassium chloride, are likely to cause gastro-intestinal upsets, if used injudiciously.

Mercurial diuretic agents are more rapid and more powerful in their action than either the xanthine or acid salt diuretics. Because of the hazard of consequent retention of nitrogen or mercurial poisoning, mercurial diuretic agents should not be used if the specific gravity of the urine tends to be fixed, or if values for the blood urea or nonprotein nitrogen are significantly elevated. Albuminuria secondary to passive congestion in the kidneys is no contraindication to their use; however, when hematuria is present, caution must be observed. Rectal suppositories of sodium [O(hydoxy-mercuric-methoxy-propyl-carbamyl) phenoxy] acetate (salygran) and sodium trimethyl-cyclopentane-dicarbonic acid-methoxy-mercury-allylamide theophylline (mercupurin), although somewhat less effective than the preparations administered intravenously, are of great advantage under certain circumstances. Recently, salyrgan and theophylline tablets, and mercuzanthin tablets for oral use, have been placed on the market. Their diuretic effect is less spectacular than that obtained from the parenteral use of mercury, and occasional gastro-intestinal disturbances are encountered when they are employed, but like mercury suppositories, they serve a useful purpose in certain cases.

In congestive heart failure, elderly patients are especially likely to suffer from gaseous dyspepsia and constipation due, in part, to disturbance of gastro-intestinal tone and secretion resulting from circulatory interference, and in part to edema in the wall of the gastro-intestinal tract. Not infrequently, abdominal distention may cause embarrassment of the heart through upward displacement of the diaphragm, and occasionally nausea and vomiting create a serious problem. The diet should consist of simple, easily digestible foods, sufficient in caloric value to maintain body weight at or slightly below the normal level, containing adequate carbohydrate, and a moderate amount of protein and fat. That the vitamin reserve of aging persons is invariably lowered because of anorexia, inadequate intake of food or faulty dentition, should be remembered, and the diet should be fortified with vitamin supplements, particularly B and C. The intake of salt should be restricted to that used in cooking, the use of extra salt being avoided. In general, during the stage of acute decompensation, it is considered advisable to restrict the daily intake of fluid to 1,500 to 1,800 c.c. Since, however, in cardiac failure the accumulation of fluid in the tissues is largely on a mechanical basis, once satisfactory compensation has been restored, the patient should be able to ingest and utilize fluids in any reasonable amounts. This is particularly important among patients who have any degree of renal impairment and retention of nitrogen, for restriction of fluids in such cases only serves to intensify the degree of renal insufficiency already present. Constipation and straining at stool should be avoided, if possible, by the routine use of laxatives, such as mineral oil, milk of magnesia in small doses, and bulk producers such as agar or similar compounds. The use of drastic cathartic agents is to be discouraged because of their weakening effect on the patient and their tendency to provoke gastro-intestinal upsets.

When gastro-intestinal upsets, associated with nausea and vomiting, occur, careful study is required to determine whether the symptoms are due to venous stasis, improper diet, overdigitalization, or to too heroic medication otherwise.

The administration of oxygen, by mask, nasal catheter or tent, occupies an important place in the management of congestive heart failure, particularly in combating cyanosis and relieving severe dyspnea. The intravenous injection of glucose, in either a 20 or 50 per cent hypertonic solution, once or twice daily, frequently is helpful when the condition is severe, because of its diuretic effect and its nutrient effect on the myocardium. Aminophylline in doses of 3¾ to 7½ grains (0.25 to 0.48 gm.) added to the glucose may be an important therapeutic adjunct. Venesection probably should be reserved as an emergency measure, to be employed when the condition is severe or in cases in which response to the customary methods of treatment has been slow or discouraging. The rapid removal of 500 to 1,000 c.c. of venous blood may be followed by definite and striking relief.

In some cases in which the condition is very severe, accumulation of free fluid in the serous cavities, pleurae, pericardium or peritoneum may be sufficiently great to interfere seriously with adequate function of vital organs, and in such cases mechanical removal of this fluid by paracentesis may be necessary. The drainage of peripheral edema by the insertion of needles or cannulas into subcutaneous tissues of extremities or genitalia, first advocated years ago by Southey, is to be discouraged.

The period of rest in bed necessary in the management of an episode of heart failure depends entirely on the degree of failure present, and the response of the patient to treatment. In general, he should be kept in bed until all symptoms related to failure have disappeared, until an essentially normal cardiac rate and rhythm have been restored and until signs of an abnormal accumulation of fluid in the tissues and serous cavities have cleared. However, it is advisable for the patient to start passive exercise while he is yet in bed, and to encourage him to start getting out of bed for short periods of time as soon as compensation has been restored, the periods in which he is up and about being gradually lengthened until he eventually is able to be out of bed for an entire day without undue fatigue, acceleration of pulse rate or dyspnea. During these latter intervals, the patient should be allowed to use the bathroom and to walk about the room, but stair climbing should be postponed until he is stronger. As recovery progresses, activity gradually may be increased, and the patient may be permitted to walk greater distances. Eventually, some patients with myocardial damage of relatively mild degree may find it possible to spend several hours daily engaged in office or other light work. Eight to ten hours of rest in bed nightly are important, and the patient should be encouraged to take a short rest period immediately after each meal. Since an episode of cardiac failure may be ushered in with an acute infection of the upper part of the respiratory tract, prophylactic measures toward the end of prevention of such infections should be employed. Whenever possible, it is to the advantage of such a patient to spend the winter months in a warm climate, thereby avoiding the rigors of a cold winter, and at the same time reducing the risk of upper respiratory infections. Generally speaking, patients who have myocardial insufficiency find themselves more comfortable in low, rather than high, altitudes.

Weighing the patient at periodic intervals is important, for, frequently, a sudden gain in weight may be the earliest clue to retention of fluid and recurrent failure of the right side of the heart. There is a certain group of patients who are able to maintain complete compensation while they are engaged in mild to moderate physical activity, even though they are thoroughly digitalized. Such patients may require the periodic injection of a mercurial diuretic agent (1 to 2 c.c. of salyrgan or mercuzanthin every seven to ten days) in order to maintain adequate cardiac compensation. Frequently, one to five tablets of salyrgan or mercuzanthin daily, taken by mouth, may be of greatest benefit to such patients, the dose being carefully adjusted to the need of the individual patient.

Psychotherapy occupies a very important place in the treatment of heart failure in elderly people. A sympathetic understanding of old age and its problems, and an intimate knowledge of the individual patient's philosophy and interests in life, are essential to assistance in his adjustment to the diminished functional capacity of the heart on recovery from an acute episode of heart failure. Yet, in a definite but kindly manner, the patient must be impressed with the importance of constantly living within the limits of his decreased myocardial reserve. Whenever cardiac reserve and the type of work permit, a limited number of hours of work at a lessened pace may be allowed each day or a certain number of days each week, for sudden disruption of long-established habits and motives is likely to induce mental depression and melancholy. Maintenance of an active interest in life is most essential. In the rehabilitation of patients who fail to regain sufficient myocardial reserve to carry on ordinary activity without dyspnea or precordial discomfort, occupational therapy is often helpful. The aging patient with an engrossing nonstrenuous hobby is most fortunate.

SUMMARY

Enough has been written here to make it evident that the management of congestive heart failure occupies a place of paramount importance in the practice of geriatric medicine, since the greatest cause of congestive heart failure is arteriosclerosis, a condition which is almost synonomous with aging. Because of the diffuse nature of the arteriosclerotic process, the treatment of the elderly patient must include careful evaluation and consideration of other organs, notably the brain, kidneys and digestive tract which, because of their associated functional impairment, may create problems to complicate the successful management of cardiac failure. This situation only serves to emphasize the importance of considering the entire body and mind as a whole in the diagnosis and management of cardiac failure in the elderly patient. For this reason, any discussion of therapy must be general, for, although the fundamentals of treatment are almost universally the same in all instances, the therapeutic details must be varied and adapted to the individual case.

The ultimate objective of geriatric practice seems aptly expressed in a quotation of Samuel Johnson in the Idler for January 27, 1759, "Nothing is more evident than that the decays of age must terminate in death; yet there is no man, says Tully, who does not believe that he may yet live another year; and there is none who does not, upon the same principle, hope another year for his parent or his friend."[1]

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IN THIS ISSUE

OTOSCLEROSIS is an old problem which baffles physicians and patients alike. Some of the modern concepts of treatment of this condition were discussed at the 1946 Annual Assembly of the Omaha Mid-West Clinical Society. We now present the paper by Dr. Samuel J. Kopetzky of New York on page 53

CARDIAC failure in the aged and the ageing is a condition which confronts the practicing physician almost daily. Some of the problems in the management of these cases were discussed by Dr. Howard M. Odel of the Mayo Clinic before the Elkhorn Valley Medical Society in Norfolk last summer. We now publish the discussion on page 61

A BRIEF but comprehensive discussion on the management of acute intestinal obstruction by Dr. Chester H. Waters, Sr., will be found on page 66

AN INTERESTING paper which was part of a symposium on fractures at the Omaha Mid-West Clinical Assembly last year was submitted by Dr. W. R. Hamsa of Omaha. The paper offers practical suggestions on the care of these fractures. You will find it on page 67

WE ARE indebted to Dr. Frank Tanner of Lincoln for an instructive discussion on tissue changes following trauma. This paper was read before the Annual Assembly of our Association, and it was beautifully illustrated with colored kodachromes. We regret that we cannot reproduce the colored photographs, but the discussion is clear and is worth your reading. You will find it on page 69

A CRITICISM of the modern classification of pneumonia with suggestions for new classification is submitted by Dr. Charles R. Hankins, a member of the Medical Staff of the University of Nebraska College of Medicine. It is on page 72

AGAIN we present the Proceedings of the Nebraska Methodist Hospital with Dr. Schenken as editor. The report this time is on ruptured tubal pregnancy. Look on page 73

AN INTERESTING discussion on Titred Serological Tests for Syphilis will be found on page 75

The Management of Acute Intestinal Obstruction*

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We are confronted with a possible acute intestinal obstruction. The onset has been abrupt and characterized by recurring colicky pains and vomiting, the latter usually copious, projectile. The results of repeated enamata have been disappointing, nil, or possibly grievously misleading. Abdominal palpation reveals only moderate generalized tenderness and a degree of distension. Significant localizable tenderness is absent.

We see, feel, and hear the tumult within as wave after wave surges and crashes futilely against the barrier. The usual hernial sites are investigated and especial consideration is given to the possible obscure, and all too often overlooked, knot in the femoral area. Evidence of incisional scars, indicative of recent or bygone intraabdominal insults, or a history of inflammatory process, with or without operation, are of utmost significance etiologically and complement our interpretation of obvious symptoms and findings of intestinal obstruction.

In the absence of a suggestive etiological background, one turns, in the interest of science, to the field of conjecture. We ponder academically over the possibilities of congenital malformations, stricture, bands, adherent Meckels' diverticulum, pernicious folds, mesenteric fossae, and even mesenteric thrombosis. However, don't cogitate overlong—your patient's life is at stake, the diagnosis is reasonably established and action is urgently indicated. Your guess as to the actual cause will most likely be wrong anyway.

Confirmation of the diagnosis of obstruction is aided by study of "scout" films especially in the upright position. The "tenting" effect produced by several fluid levels with superimposed gas bubbles is pathognomonic of small bowel embarrassment. Abnormal distension of cecum is significant of distal obstruction of colon. Hence, radiography is frequently of considerable aid in approximating the level. The use of barium is usually contra-indicated in such studies except as an enema in colonic obstructions.

Laboratory tests offer aid only in determining the gravity of the situation in the degree that dehydration has caused hemoconcentration and diminished concentrated renal output. If, however, an appreciable leucocytosis and evidence of actual renal pathology are shown, the probability of accompanying strangulation should be given serious consideration.

In simple small bowel obstruction the prolonged distension provokes capillary stasis and an edema of the wall inaugurating a nutritional deterioration leading to eventual focal or extensive necrosis. In this state the bowel has become inert, functionless, and large areas of mucosa have sloughed. This is an absolutely hopeless situation and death occurs shortly, with or without a perforative peritonitis.

Strangulation, as an added factor, presents our gravest problem in obstruction. Its occurrence is characterized by early appearance of profound toxic manifestations with fever, rapid pulse, and leucocytosis. This situation calls for immediate operation regardless of all contraindications. Prompt surgery before complete avascularization has occurred is the ideal procedure. If the bowel is black, lustreless, inert and fails to respond to appropriate moist heat applications in a reasonable interval after liberation, resection is done. When formidable procedure is contraindicated the damaged bowel is exteriorized. Good judgment determines the need of proximal enterostomy in either case.

In simple obstruction early surgical intervention is also the ideal with restoration of normal functional continuity. In the occasional instance of obstruction due to inflammatory process, maintained decompression by gastro-intestinal section, plus the usual supportive measures, will result in eventual complete recovery. Decompression in the above manner, if effective, or by enterostrumy stays or ameliorates the progress of bowel pathology and is an absolute essential until the general condition is brought to level to withstand major surgical intervention.

During the entire management of obstruction it is imperative to maintain an adequate water balance, salt loss must be restored, and an effort made to meet nutritional need. Glucose in normal saline, plasma, whole blood and animo-acids judicially administered parenterally will reasonably take care of immediate need. Place the blame where you will, delay and procrastination are the greatest factors in the high mortality record of intestinal obstruction, a figure approximating 50%.

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*Presented before the Annual Assembly of the Nebraska State Medical Association, May 8, 1946.

Time, implacable, inexorably marches on. In his steps stalks an ominous figure—Disaster.

* * *

Common Elbow Fractures*

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The mobility of the elbow joint is dependent upon its constituent three joints, hence the surgical anatomy should be briefly discussed.

The lower end of the humerus is broadened and flattened in the frontal plane, terminating in the internal and external condyles which are separated by the coronoid and olecranon fossa. The articular surface lies anterior to the axis of the shaft and is divided into two parts—the trochlea for ulnar, and the capitellum for radial articulation. Surgically, the lower end of the humerus may be divided into an external and an internal condyle, each surmounted by the epicondyle. The internal epicondyle is more prominent than the external epicondyle and is grooved posteriorly to receive the ulnar nerve. Both epicondyles serve as landmarks in examination. The upper end of the ulna consists of a sigmoid fossa separating the coronoid process anteriorly and the olecranon process posteriorly. The latter is subcutaneous and easily palpable. On the lateral side of the coronoid is an articular surface for the border of the head of the radius. The head of the radius is disc shaped, the slightly concave end articulating with the capitellum, the border of the disc articulating with coronoid process.

The movements of the elbow joint thus consist of a typical hinge action between humerus and ulna which articulate at an angle of 5° to 20° open outward, known as the carrying angle, and a rotatory action between head of radius and its apposing surfaces, the capitellum of humerus and coronoid of ulna.

At birth, the ends of all bones of the elbow are cartilaginous. A center of ossification for the capitellum appears at two years, for the head of the radius and medial humeral epicondyle at five years, for the trochlea and lateral epicondyle at eleven years and for the olecranon at ten years. Variations in appearance at a definite age suggest roentgenological examination of the normal as well as of the injured elbow for comparison, as appearance of centers of ossification may be influenced by endocrine factors and by general health.

EXAMINATION OF THE ELBOW

A comparison of the injured elbow with the normal elbow determines the position of the constituent parts of the joint, the motion, and the amount of swelling. A posterior view of the two elbows in identical positions with palpation of the three cardinal landmarks, both epicondyles and olecranon, establishes their relative positions. In full extension, these three points are in line. In the right angle position, they form an equilateral triangle. The stability of the joint is tested by fixing the humeral shaft with one hand, grasping the patient's hand with the examiner's same hand and exerting backward or forward force in the axis of the forearm. Using the same position, the freedom of the radioulnar joint is determined by pronation and supination. Flexion-extension and pronation-supination ranges are measured or at least carefully estimated and recorded. Similar record is made of the sensory and circulatory status of the hand. These may save considerable embarrassment later as the question may arise whether loss of pulse or presence of numbness was present before treatment. All of these maneuvers may not be possible in acute injury of the elbow; in that event, use all that are compatible with the patient's tolerance and condition. Lastly, good roentgenological study in two planes should be made before any treatment is given, resorting to comparison studies of the normal side if diagnostic difficulties appear.

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*Read before the Omaha Mid-West Clinical Society, October, 1945.

SUPRACONDYLAR FRACTURES OF THE HUMERUS

The most common fracture is the supracondylar or diacondylar injury, especially common in children, and resulting from a fall on the hand with elbow in semiflexion or a fall on hyperextended elbow. The typical displacement is posterior and superior of the lower fragment, thus endangering the cubital sturctures. To this is added internal rotation by the custom of bringing the patient in with his hand supported across the abdomen. The associated soft tissue damage (muscular particularly) results in marked swelling in a short period of time, obliterating landmarks and making examination difficult.

Reduction of a typical supracondylar fracture calls for anesthesia, general, rather than local because of the already present swelling, and inhalation rather than intravenous, as few children are sufficiently cooperative to allow venous puncture. Preliminary strong traction to the hyperextended arm followed by thumb-finger leverage of the short distal fragment accomplishes reduction provided the relative position of upper and lower fragments are maintained as defined by the palpable inter-tubercular sulcus and elbow position on the sound side. Only in this manner can the frequently present internal rotation be recognized and corrected. Flexion following reduction is a maneuver for retention of position obtained, not a maneuver of reduction. The amount of flexion is dictated indirectly by the amount of swelling of the elbow and directly by the character of the radial pulse. Comparison of the sound elbow in a similar position makes possible clinical decision of presence or absence of reduction in most cases. If deemed satisfactory, a posterior molded plaster splint is applied, suspended by the wrist from the neck, avoiding all cubital pressure. Roentgenologic examination confirms reduction before anesthesia is discontinued. At least 24 hours hospital observation is routine. The house staff is instructed to split dressings and decrease flexion if circulation becames embarrassed.

Variations in this routine are numerous. In fractures associated with marked swelling, preliminary aspiration of hematoma decreases the size of the swelling, making manipulation and fixation easier and safer. The posterior splint may be extended over the shoulder and anterior chest to maintain desired external rotation. The posterior splint may be abducted and a body cast added to insure elevation in instances of edema. Pronation position may be useful in controlling a tendency to valgus at the fracture site.

Re-examination by x-ray is made ten days following reduction. If the position is unchanged or minor only, motion is begun at the end of the second week, allowing flexion beyond the splint position. At the third week, the elbow is allowed more extension, using the splint at night, relying on the sling suspending wrist to neck in the daytime. By the fourth week, the sling alone at right angles should be sufficient. If x-ray examination at this time shows unchanged position, the sling may be discontinued, adding extension exercises as carrying small weights. Full extension may be very slow. Force is seldom of much value as subsequent edematous reaction and muscle spasm may markedly slow the progress.

INTERCONDYLOID OR COMMINUTED FRACTURES OF LOWER END OF HUMERUS

This injury varies from a "T" fracture to marked comminution of the lower end of the humerus. Reduction is usually not difficult but retention presents difficulty unless traction is continuous. Bed rest with arm abducted to 90°, elbow flexed to 90° and suspended by the forearm, with skeletal traction to the olecranon is favored by many as it allows frequent inspection and some joint motion. The value of the latter, however, is overestimated as pin traction in upper humerus and in olecranon fixed in body-arm cast stimulates more rapid healing following which motion may be developed by exercises. This method is especially applicable to compound fractures where motion is conducive to prolonged drainage.

FRACTURES OF SINGLE CONDYLES OF HUMERUS

These result from falls on the outstretched arm, involving the external condyle much more frequently. Normal bony landmarks are disturbed; i.e., the epicondylar line is oblique instead of horizontal and the width is increased. Fractures without displacement are immobilized in a posterior plaster splint for two to three weeks, then supported by a simple triangular sling for two weeks. Displaced fragments may be reduced in full extension position by massaging away the edema, abducting or adducting the forearm on the arm as the case may be, pushing the fragments into place, then fully flexing the supinated forearm and applying a posterior molded splint. Failure to hold this reduction as demonstrated on x-ray examination is an indication for open reduction and fixation by nail or screw. The period of immobilization is the same as for fractures without displacement.

FRACTURES OF THE OLECRANON

This fracture results usually from the sudden cross strain placed upon the upper end of the ulna in falls upon the flexed supinated forearm. It is a distinct adult fracture. Without displacement, simple immobilization in plaster cast in 135° extension for four weeks suffices. Displaced fracture fragments call for open reduction to reduce anatomically. Only in this manner may traumatic arthritis of the elbow be avoided. Fixation is by metal appliances, removable as pins protruding out through the skin or permanent as screws or wire loops. A circular cast at right angles is applied for protection. Motion is begun in two or three weeks and all support is discarded by the fifth week.

FRACTURES OF HEAD AND NECK OF RADIUS

Although these are divided into fractures of the head, fractures of the neck and separation of the epiphysis, they are combined under one heading. Mechanism of injury is similar to supracondylar or condylar injuries. Head fractures may be simple and not displaced or comminuted and separated. Neck fractures are usually transverse and usually displaced. The aim of treatment is anatomical reduction. If this cannot be obtained, removal of poorly fitting fragments is necessary except in children where greater leeway is possible due to adaptive growth changes.

Fissure fractures of the radial head are immobilized in posterior splint in full supination and acute flexion for two weeks, then supported by a simple sling for two weeks.

Displaced fractures of head or neck are treated by open reduction as soon as possible after injury. A portion or all of the head may be removed in an adult without disturbing the stability of the elbow provided the orbicular ligament is left intact. Displaced epiphyses should be accurately reduced and held in plaster cast in flexion and supination for three weeks and then protecting with sling for an additional two or three weeks.

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Some Aspects of Traumatic Pathology*

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Trauma is such an obvious cause of disease and of tissue destruction that one may be inclined to oversimplify or to entirely disregard its more obscure aspects. In the allotted time, I can present only a few of these problems as viewed from the standpoint of the pathologist. Even in this brief presentation however, you will, I am sure, see the close relation of trauma to the field of legal medicine, and in that field the work and writings of a former Nebraskan, Dr. Alan R. Moritz of Boston is outstanding. His textbook, The Pathology of Trauma, has been the basis for much of the discussion that I will give with these cases of traumatic disease. The clinical abstracts are intentionally brief, and serve mainly to give the age and sex of the patient plus some information about mode of injury, length of life after injury, etc. The first group of cases represents blunt trauma to abdomen or lower thorax.

Case 1. S.C., white female, age 4 years, was crushed between curb and wheels of bus while playing. Immediate shock, with death, thirty minutes later in receiving room of hospital.

Autopsy revealed a massive intraperitoneal hemorrhage, the result of an extensive traumatic laceration of the liver, as shown in the following slides.

With the possible exception of the brain, the liver is the organ most frequently injured by blunt violence and this particularly true in children, probably because of the relatively large size of the organ.

One should keep in mind that any disease that might cause enlargement of the liver will make that organ more susceptible to traumatic disease. Minor liver injuries are probably more common than we usually consider, and probably many of the incidental scars and deformities of liver seen at autopsy represent healed lacerations. Of some academic and possibly some practical interest is the occurance in this case of liver emboli in lungs. These, too, are probably common, but seldom found unless carefully searched for. They illustrate one of the remote effects of trauma.

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*Presented as a kodachrome slide demonstration at the Annual Assembly of the Nebraska State Medical Association, May 7, 1946.

In comparison to the clinical data and pathologic findings in Case 1, the next case offers some contrast.

Case 2. J. D., white male, age 2½ years, pulled a heavy dirt-filled flower box over on himself from a moderate height. After box was removed by parents, child cried a few minutes, then went toddling about house, apparently uninjured. About two to three hours later child rather suddenly went into shock, became pale, had distended, tender abdomen and was rushed to hospital. Death occurred several hours after the traumatic episode, before abdominal laporotomy was carried out.

Autopsy in this case too revealed massive intraperitoneal hemorrhage occurring as the result of laceration of the liver and as shown by the following slides.

Now, what is the explanation of the delay in symptoms following trauma? I believe the liver in this case gives us the clue. A large redundant fold or flap of capsule has been stripped from the liver surface around the margins of the laceration. This indicates the probable retention of blood under pressure by an intact capsule, following intrahepatic laceration. The same type of delayed hemorrhage may occur in other viscerae, especially the spleen. Deep seated lacerations from blunt injury may never reach the surface, but may form a hematoma which may subsequently become infected, thus offering one of the most difficult diagnostic problems, from delayed effects of trauma.

Case. 3. F. D., white male, age 20, found conscious on a roadside one-half hour after auto accident. Brought immediately to hospital. Physical exam.: Temp., 99.8; p., 100; R., 25; B.P., 107/70. Fracture, right femur. General abdominal tenderness. Lab. Findings: Urine, alb. one plus; leukocytes, one plus; erythrocytes, three plus. Course: Close reduction fracture—cast. Next day vomiting, more abdominal pain and tenderness, mental confusion, B.P. 60/0. Received repeated transfusions and supportive therapy, but shock continued and death occurred about forty-eight hours after injury.

The autopsy in this case revealed at least two findings that are of interest from standpoint of traumatic pathology. First, we found a rupture of urinary bladder occurring in dome of bladder and a diffuse early peritonitis as result of soiling of peritoneal cavity with urine.

This type of perforation occurs from blunt injury to abdomen when the bladder is fully or over distended. If the bladder is only partially distended, rupture, if it occurs, is lower, below the peritoneal reflection and results in retroperitoneal extravasations. This intraperitoneal rupture then indicates a distended bladder at time of injury and might indirectly suggest recent ingestion of alcohol. Bladder injury from blunt trauma to abdomen occurs more frequently in men than women and is rare in children. The second thing we found in this case at autopsy illustrates one of the more common remote effects of trauma. There were a few petechial hemorrhages in subcortical areas of brain and a moderate cerebral edema. A fat stain of brain tissue revealed presence of fat emboli lodged in some of the small arteries with early focal infarction. Fat emboli are most often associated with fracture of long bones and we assume that torn sinusoids and venous channels in bone marrow allow flow of liquid fat from marrow cavity to blood stream. The resulting symptoms, if any, are pulmonary or cerebral in most instances.

Additional lesions caused by trauma to lower thorax (but not accompanied by case abstracts, due to lack of time) include rupture of left leaf of diaphragm and rupture of thoracic aorta, as illustrated in the following slides. Such severe lesions in soft tissues may occur without skeletal fractures and without much external evidence of injury.

Leaving the subject of blunt injuries of abdomen and thorax, I would like to briefly present a case illustrating one of the delayed effects of trauma, and to show how trauma may initiate a purely medical problem.

Case 4. Mr. W. T., white male, age 74, was kicked in left groin during a fight. He had immediate local pain and swelling and in forty-eight hours had clinical signs and symptoms of thrombophlebitis of left femoral vein. There was a gradual recovery in course of four to five weeks, with bed rest and general care. After getting up and around, complained of moderate dyspnea on exertion with substernal pain. This was progressive until eight weeks after injury he had to be hospitalized. Physical signs of extreme right heart failure. Death ten weeks after injury.

The autopsy findings in this case revealed a large organizing clot in the pulmonary artery with occlusion of about three-fourths of the lumen. This was assumed to have been embolic from left femoral vessels and those veins showed residual thrombi that were judged to be of same age as the pulmonary embolus. There was marked dilatation of right heart.

While in the last case the relation to trauma was obscure, the next case is obviously traumatic but an associated non-traumatic medical lesion might have been overlooked.

Case 5. Mr. G. G., white male, age 45, admitted to hospital six hours after farm accident with runaway team. Unable to move extremities. Physical examination revealed pain, tenderness and discoloration posterior cervical area. Loss of motor function from neck down and sensory loss up to fifth rib. X-ray revealed fracture dislocation fourth cervical. Increasing dyspnea, rising temperature and death thirty hours after injury.

The autopsy revealed as anticipated, a marked contusion and compression of cervical portion of spinal cord, but also showed a brownish discoloration of meninges and "white" substance of cord that appeared to be unrelated to the acute trauma. The sections taken away from the site of trauma showed definite histologic evidence of nerve cell degeneration, gliosis and presence of macrophages, containing old blood pigment and lipoid debris. This was evidence of a diffuse cord degeneration of a chronic type, probably multiple sclerosis.

A letter of inquiry to his home doctor revealed that this man had had progressively impaired locomotion and that a year ago had consulted a neurologist who made a diagnosis of multiple sclerosis. Thus trauma was the obvious disease and produced the lesion causing death, but a serious degenerative disease of spinal cord was also present and without adequate history, completely hidden by the acute trauma. It shows how a case of obvious trauma still warrants careful and complete necropsy study. The fact that investigation of such a case may be delayed need cause no particular concern, for some of the gross photographs you have just seen were from a body exhumed eight weeks after burial.

The last case is one of a shot gun wound and shows how the rather routine necropsy examination of such cases may reveal pathologic curiosities at least of interest to the pathologist, if not of any particular general interest.

Case 6. Mr. W. G., white male, age 19, was accidentally shot with a 12 gauge shot gun by a hunting companion. The shot was said to have been fired from a distance of twenty feet and penetrated upper left arm, lower left thorax, diaphragm and into abdomen in that general direction. Death occurred in about forty-eight hours as result of shock, left hemothorax, multiple perforations of abdominal viscerae, etc.

Of particular interest at autopsy was a badly traumatized spleen containing many lead shot and also the cardboard end of shot gun shell plus wadding, etc., and evidence of multiple shot wounds of left kidney, one of which has penetrated to upper calyx and lays free in kidney pelvis as shown in the slides.

I have briefly presented some of the aspects of traumatic pathology and have endeavored to show that while trauma is a relatively simple and obvious cause of disease it has many features which warrant our best efforts in accurate diagnosis and which may tax the ingenuity of the clinician in many instances; that traumatic medicine is often inseparable from legal medicine and that careful investigation from both clinical and pathological standpoints is necessary for the proper evaluation of even the most simple appearing case of disease of traumatic origin.

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* * *

SHELL FRAGMENT REMOVED FROM HEART

Two doctors in the Army Medical Corps report the successful removal of a shell fragment from the heart of a 23-year-old American soldier in an article appearing in the Archives of Surgery, published by the American Medical Association.

The authors—Lieut. Col. William B. Schaefer and Capt. Victor P. Satinsky, Medical Corps, Army of the United States—say that the soldier was wounded June 24, 1944, near Cherbourg, France, when a mortar fragment "stung him through his back." X-ray films failed to reveal the shell fragment because of the collection of blood in the chest cavity.

The foreign body was located, however, by fluoroscopic examination which revealed that the object moved with the beat of the heart. Surgical exploration showed the fragment had cut through the lung and pentrated the heart. A small incision was made in the left chamber of the heart and the fragment was grasped and removed by clamps. The patient was given transfusions and treated with oxygen, sulfadiazine and penicillin.

The authors state that "six weeks following operation, the patient was permitted out of bed and graduated exercises were begun. Special exercises were instituted early to assist in the reexpansion of the lung (which was collapsed), to prevent deformity and to aid in the development of the thoracic cage. These exercises were carried out regularly four times daily . . . Four months after operation, the patient is in excellent condition."

A Proposed Classification for the Pneumonias

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On several occasions I have attempted to gather a series of cases of pneumonia for a statistical survey. The question as to whether or not a pneumonia in a particular case had been properly classified arose in enough cases that the validity of a statistical study could be questioned. Apparently this confusion in the classification of pneumonias has arisen from two sources. The first is inherent in the classification that we have today. The second is due indirectly to the advent of highly successful therapy in the form of the antibiotics and chemotherapeutic agents.

The present classification of pneumonia is primarily based on pathological findings. Terms commonly used in describing the process are lobar, bronchopneumonia, and interstitial pneumonia. The final differentiation of the latter two types is mainly on microscopic analysis. Clinically, how are we to arrive at a microscopic diagnosis unless it is by inference? Inference is subject to error. Unfortunately for a true classification, early treatment of pneumonia with the newer methods has markedly changed the clinical course of some of the pneumonias, especially that of lobar pneumonia. Many diagnoses of lobar pneumonia are made today without demonstration of the pneumococcus, in the absence of the typical clinical picture, and primarily on the basis of consolidation by physical and x-ray examination. Evidence of consolidation will appear in cases of confluent bronchopneumonia and interstitial pneumonias. Before the recognition of the many varied types of pneumonia that we see today, the old classification of lobar and bronchopneumonia was sufficient. There have been so many additions to the bronchopneumonia group within the past few years that we are unable to properly differentiate them with the present terminology.

Secondly, the advent of effective therapy frequently dampens our curiosity as to the exact etiology of a pneumonic process. When a diagnosis is made, one of the new therapeutic agents is administered without a serious attempt to determine the etiology of the condition present. Statistics show that the mortality of pneumonia has been greatly reduced by this method of approach, but our knowledge of the exact process has suffered. Usually an attempt to determine the exact etiological cause is postponed until there is failure of the new therapeutic agents to affect a cure. If we are to pursue a scientific attitude in the treatment of disease does it not seem logical that the etiology of that disease be determined before treatment is instituted? Often an exact etiological diagnosis in the case of a pneumonia will dictate specific methods of treatment. With the vast amount of research in progress today on antibiotics and chemotherapeutic agents, it appears that more and more specifics are going to become available; and with this new specificity in treatment, exact etiological studies of infectious problems will be necessary for intelligent therapy. This does not apply to pneumonia alone, but to all infectious processes.

I should like to suggest a clinical-etiological classification of the pneumonias. This would have a basic skeleton outline in which, by the substitution of proper terms, any pneumonia can be classified. The clinical part of the diagnosis offers two alternatives: confluent or disseminated. The term confluent may be used in cases showing consolidation. The term disseminated is applied to a diffuse, discrete type of pneumonia, with intervening spaces of aerated lung between the pneumonic areas. The second portion of the diagnosis applies to the etiological agent.

Several examples are given below to show the adaptability of such a classification:

Confluent Pneumococcal Pneumonia (old lobar type)

Disseminated Pneumococcal Pneumonia (old bronchopneumonia)

Disseminated Lipoid (mineral oil) Pneumonia

Disseminated Viral (influenza type A) Pneumonia

Disseminated Staphylococcal Pneumonia

This classification has several advantages. If the diagnosis is completed, the form of therapy is indicated, i.e., a tularemia pneumonia calls for streptomycin, etc. This classification affords a lability to diagnosis, in that pneumonias of different etiology having similar pathological processes can be disassociated in clinical thinking.

CONCLUSIONS

1. The need for a new classification has been shown.

2. A clinical-etiological classification of the pneumonias is suggested.

3. Such a classification will help in statistical analysis of the pneumonias as to the clinical course, prognosis and efficacy of treatment of the various pneumonias.

4. Such a classification will be a guide in therapy.

* * *

Proceedings of the Staff of Nebraska Methodist Hospital

Omaha, Nebraska

Ruptured Tubal Pregnancy

DR. LLOYD O. HOFFMAN (Clinical History): The patient was a 35-year-old housewife who entered the hospital complaining of pain in the left lower quadrant radiating into her left thigh and the right upper quadrant of the abdomen. This pain developed gradually at the time of her last menstrual period, October 4, 1945. Since that time she had had an intermittent, bloody vaginal discharge. On two occasions she had had colic, most pronounced in her lower left quadrant. The September period was one day less than normal and the October period was scanty. On several occasions there had been pain with stool.

Past History: She had suffered the usual childhood diseases. She had had no operations. Her third pregnancy was four years ago and the labor lasted four hours. During this pregnancy she was in bed 12 days postpartum and she said that she did not feel very well for several weeks following this.

Menstrual History: Menses began at 11 years, were regular 28-day cycle with four to five days duration. She used 12 to 14 pads each period. There had been some pain with the periods since the last baby.

History by systems was essentially negative except that she complained of consistent tenderness of the breast with periods and two years previously she had had some intermenstrual bleeding.

Physical Examination: The patient was a somewhat obese white female with moderate pallor. Head, neck and chest were negative. Extremities were negative. The abdomen showed a mass the size of a 12 to 14 weeks' pregnancy extending from the right of the midline to the left lateral pelvic wall. Vaginal examination showed that this mass was fixed in the pelvis, of doughy consistency and that the uterus was soft. Diagnosis on admission was incarcerated retroverted uterus.

I have always been interested in ectopic pregnancy and I believe it to be one of the most difficult things that we have to diagnose. It has been stated that the possibility of a correct diagnosis in ectopic pregnancy before rupture is about 20 to one. After rupture the chance is reduced to about 5 to one. The difficulties in diagnosis increase with the type of ectopic pregnancy, namely: tubal, ovarian and abdominal.

In the five ovarian pregnancies I have seen I suspected the diagnosis in only one case. Eighty per cent of the cases of ovarian pregnancies on which I have operated have been nurses. I have operated on three cases of abdominal pregnancy and all for supposed complications of pregnancy. Two of them were ruptured and had spilled in the right lumbar gutter and both these cases were assumed to be a fulminating appendicitis. In one case there was a referred shoulder pain when the patient was in a reclining position and I think in particular case that perhaps I should have guessed it, since peritonitis develops so rapidly and fluid makes enough pressure on the diaphragm to give some referred shoulder pain.

In the third case of abdominal ectopic pregnancy that I saw the placenta was attached to the recto-sigmoid. The patient developed acute rectal discomfort. On colon x-ray we could demonstrate a diverticulum and I thought it was probably a perforating diverticulitis. It turned out to be about a ten weeks' pregnancy with a viable fetus. I have seen one full-term abdominal pregnancy and, after psuedo-labor developed, the diagnosis was relatively simple. The placenta was attached to the liver and the hepatic flexure of the colon. There was a small soft uterus which could be easily demonstrated vaginally.

A tubal pregnancy usually develops as a

central tubal implantation in which case rupture or abortion is the ultimate outcome. I think most of the textbooks will point out that ampullary pregnancy is the most common. Almost all the ampullary pregnancies end by tubal abortion, and a great many of them are never recognized. I have followed three such cases through without operation. The first case was a patient who for religious reasons refused operation. I had seen her in the office, she had missed two periods and developed acute abdominal pain one morning with an almost boardlike rigidity. The mass was about the size of a grapefruit and was absorbed in the cul-de-sac in about eight weeks. The second case was an unmarried girl who was seen three days after a tubal abortion occurred. She gave a history of exposure and of having missed one period. Inasmuch as the rupture had occurred three days previously and was an early pregnancy I did not contemplate surgery. This mass was absorbed in three weeks and was about the size of a large lemon. The third case was a married woman who consulted me about a week after a tubal abortion had taken place. There was no cul-de-sac mass and diagnosis was not established until the twelfth day when I thought that I could feel an organized blood clot about the size of a lemon in the cul-de-sac. In that case the absorption took place in about two and a half to three weeks.

In August and September of 1941, as I remember, there were three cases admitted to the Gynecology Service at the University Hospital with a provisional diagnosis of ectopic pregnancy and all three of these cases were simple cornual pregnancies. I think that is a thing which we have to think about in the differential diagnosis because a great many normal pregnancies are operated on each year because someone thinks they are ectopic.

This case reported this evening presents a picture which I think is rather rare—an abdominal mass about the size of a 14 weeks' pregnancy associated with a normal white blood count. The count was rechecked three times and found to be the same each time—about 7,000. I have seen one such case at the University Hospital which presented the same picture except that there was a mass which extended up to the umbilicus, and the white count ranged from 3,000 to 7,000 even after she had four transfusions. All other ruptured ectopics which I have seen had white counts which ranged from 15,000 to as high as 37,000. A great many attempts have been made to evaluate the sedimentation rate in these cases. In my experience if the blood spillage is small the sedimentation time is essentially normal. Cases such as this show as high a sedimentation rate or higher than acute salpingitis, pelvic abscesses or ovarian cyst on a twisted pedicle. The preoperative diagnosis of ruptured ectopic was based largely on the characteristic doughy feeling on pelvic examination. Mucoid ovarian cyst, of course, could not be excluded. Intermittent intermenstrual bleeding had occurred over a period of about seven weeks. This may also occur with ovarian cyst under pressure.

The operative findings were an old pelvic peritonitis, with a lot of cobwebby adhesions, characteristic nodular appearance of the tube which had been infected. She had more than a double handful of blood clot in the pelvis. Inasmuch as this patient had a bad obstetrical history, she certainly was not a good obstetrical prospect. I did a hysterectomy and a bilateral salpingectomy. I also did an appendectomy which I think we should never do in an acute ruptured ectopic pregnancy, but I do not believe it makes any difference after we have organization. In other words, rupture had occurred about three weeks previous to admission and I felt it safe to do the appendectomy in this case. She made a non-eventful recovery and was released from the hospital on the seventh postoperative day.

DR. JOHN R. SCHENKEN (Pathological findings): The specimen consisted of a uterus amputated above the cervix with both tubes and the left ovary attached. About 300 cc. of brownish black blood clot which had been removed from the pelvis accompanied the specimen. The isthmic portion of the left tube was thicker than normal, measuring about 1 cm. in diameter. The tube was ruptured along its superior surface for a distance of about 5.0 cm. beginning at a point 2.5 cm. from the uterus. The wall of the tube was hemorrhagic. The mucous membrane had a yellowish hue.

Microscopic examination revealed that the tube was the seat of chronic salpingitis, a common precursor of tubal pregnancy. In addition, the mucous membrane showed a marked decidual reaction not only in the affected tube but also in the opposite non-affected tube. The literature is not clear as to the frequency of this phenomenon, although most authorities on the subject mention the fact that it may occur. The endometrial cavity was lined by a thin smooth endometrium which microscopically showed that it was under the influence of estrogen. Evidently the decidua had already been cast off completely and hence a diagnostic curretage or an endometrial biopsy would not have been helpful in establishing a diagnosis. The presence of decidua in the endometrium unassociated with chorionic villi is one diagnostic criterion for the detection of an extra-uterine pregnancy.

If uterine bleeding occurs 7 to 10 days before the patient is examined, it is almost certain that the decidua has already been cast off.

Occasionally the decidual reaction in either extra- or intra-uterine pregnancies affects the subserosal tissues over the tubes to the extent that a gray, papillated overgrowth of decidual tissue may assume the appearance of serosal carcinomatosis.

We were unable to demonstrate a fetus but by taking many sections, which is frequently necessary, we were able to find chorionic villi. It is often impossible to find the fetus, probably because it undergoes disintegration or because it is lost in the large mass of blood.

The Friedman test is usually not helpful in the diagnosis of extra-uterine pregnancy because the emergency usually does not permit waiting 48 hours for the report. In addition, the hormone is absent if the chorionic villi have undergone degeneration. If only the fetus died, the test would still be positive in many cases.

One very confusing condition which has been emphasized in the recent literature is the rupture of a corpus luteum cyst with hemorrhage. This condition may also produce a positive Friedman test.

In practically all cases of tubal pregnancy associated with bleeding due to abortion or rupture, an elevated white blood cell count is present. This case was an exception to this general rule. Therefore, there is no absolute way that a laboratory can make the diagnosis of tubal pregnancy. The diagnosis must always be made on the total picture rather than a limited number of procedures.

* * *

Titred Serological Tests for Syphilis

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The use of short intensive methods now commonly employed in the treatment of syphilis frequently results in the termination of treatment while the patient's blood is still positive to serological tests. This is in contrast to methods of treatment formerly used—a two-year treatment period with interspersed rest periods once being common, during which time the patient's serology usually became negative. If serology is to be of assistance in determining the success of treatment by rapid methods, a type of test procedure is necessary which will indicate changes in the degree of positiveness rather than answer the question, "Is the blood positive or is it negative?" Serologic quantitation of a series of specimens is the necessary answer.

While quantitative tests are not new, their extensive utilization is recent. If maximum benefits are to be derived, greater clarity on the subject is needed by many who would make use of the results of such tests.

NATURE OF TITRED TESTS

Any of the conventional types of test can be converted into a titred test. The change consists in altering it so as to determine the smallest amount (greatest dilution) that will yield positive results. A series of tests must be run on the same specimen, each being identical except that a different and known dilution of the patient's serum is used in each.

Various systems of dilution have been used in different laboratories. One of the simplest and the one employed in the Department's laboratories is a series of dilution with salt solution. Manner of dilution is as follows:

		Dilution
1st tube	Patient's serum undiluted	1/1
2nd tube	Serum plus equal amount salt solution	1/2
3rd tube	Some of contents of tube 2 plus equal amount of salt solution	1/4
4th tube	Some of contents of tube 3 plus equal amount of salt solution	1/8

The dilution process proceeds in like manner until the desired number of dilutions has been prepared. Usually ten are used. A test dosage from each is then used. This gives a dilution range from undiluted (1/1) to a dilution consisting of one part of serum diluted to a volume of 512 (1/512). This range is sufficient for all except an occasional specimen which will be found positive in all of the ten test dilutions.

METHODS OF REPORTING TITRES

By some quantitative systems titres are expressed by names such as "Kahn Units," "Kolmer Units," etc. As these are all based on some system of dilution, it would appear simpler to name the dilution directly. In the Department's laboratories this system is used. A titre of 1/1 indicates that positive results were secured only on undiluted serum. This is the weakest degree of positiveness. A titre of ½ is twice as high a titre; ¼, four times as high, etc. The denominator of the fraction indicating the titre expresses the greatest dilution of serum with which positive results were obtained.

CHOICE OF TEST FOR QUANTITATION

While any conventional type of test may be used for quantitation, some tests are preferable for this purpose. A test, if used for quantitation, should be one capable of being performed on successive occasions on as identical a sensitivity level as possible. Flocculation tests, because of their greater simplicity, are preferable to complement fixation tests. Tube tests are to be preferred to microscopic technics. Kahn's antigen is far from ideal because of the wide variation in composition of different lots of antigen and because of the rapidly changing sensitivity of the diluted antigen as prepared for test. Mazzini antigen is more satisfactory in both these respects. Cardiolipin antigens, because of the chemical reproducibility should prove more satisfactory in this respect.

Another element is also worth considering in choice of test. Whatever technic is used for quantitation, specimens will be encountered which prove negative to the titred test used although positive to other good tests. For instance, a specimen negative to a quantitative test using Mazzini's antigen should be also negative to the Mazzini test, but might conceivably be positive to a complement fixation test. Thus a specimen might be positive and still have a negative titre. A quantitative test is desirable with which such specimens will be encountered most rarely.

CONVERSION OF RESULTS OF ONE TITRED TEST TO THOSE OF ANOTHER

This cannot ordinarily be accomplished with any degree of satisfaction. The existence of a single substance, "reagin," as resulting from syphilitic infection and being the sole reactive substance in serological tests has been postulated. According to this hypothesis, tests are either qualitative tests for the presence or absence of "reagin" or titred tests for its concentration. If this concept were true, conversion of results should be possible.

However, there is reason to suspect that there is not such a specific substance as "reagin" and that there may be not one but several qualities in serum which appear as a result of syphilitic infection and cause positive results in tests. Also it is certain that there are a number of nonspecific factors, chemical and physical, that influence the degree of positiveness of a serum as shown by serological test. The combination of such factors possessed by one specimen may make it especially prone to show positive results to one test but less susceptible to reaction to another test. Another specimen, because of a different balance of these factors, may favor a test not favored by the first specimen. Most quantitative tests will agree as to which of two specimens is the more strongly positive, but there will be exceptions even to this. The following illustrates what might happen with exceptional specimens. Three different specimens are shown titred by three different quantitative technics.

	Specimen 1	Specimen 2	Specimen 3
Titred Test A	1/2	1/4	1/16
Titred Test B	1/16	1/8	1/4
Titred Test C	1/32	1/128	1/64

In this illustration, specimen 3 showed the highest titre to technic A, specimen 1 to technic B and specimen 2 to technic C. Each of these quantitative technics, although they appear to disagree, might prove equally useful in practice because of their ability to indicate the changes in titre occurring in a series of specimens from a patient. It is the change in titre evidenced in a series of specimens that is significant. The degree of titre exhibited by a single specimen is a secondary matter. These tests would not be interchangeable, however. This illustration serves to emphasize the importance of submitting all specimens of a series to the same laboratory so that the same technic may be used throughout.

PSEUDOQUANTITATION

The practice formerly used by many laboratories of reporting positive results by using a number of pluses such as 1+, 2+, 3+ or 4+ might be called pseudoquantitation. Certainly, as applied in many laboratories, the quantitative significance was non-existent or slight as compared with the type of quantitative test here being considered. These remarks are intended to rule out this type of test or report from further consideration under the subject of quantitation, but not intended as a criticism of the validity of such tests for other purposes.

REPRESENTATIVE TITRES ENCOUNTERED IN QUANTITATIVE TESTS

Such titres would, of course, vary with the class of positive specimens being tested. The tabulation which follows shows percentages of positive specimens classed according to titre and based on about five-hundred specimens titred consecutively. While all classes of specimens were included, many were from individuals recently treated. The figure under each titre indicates the percentage of positive specimens of that titre.

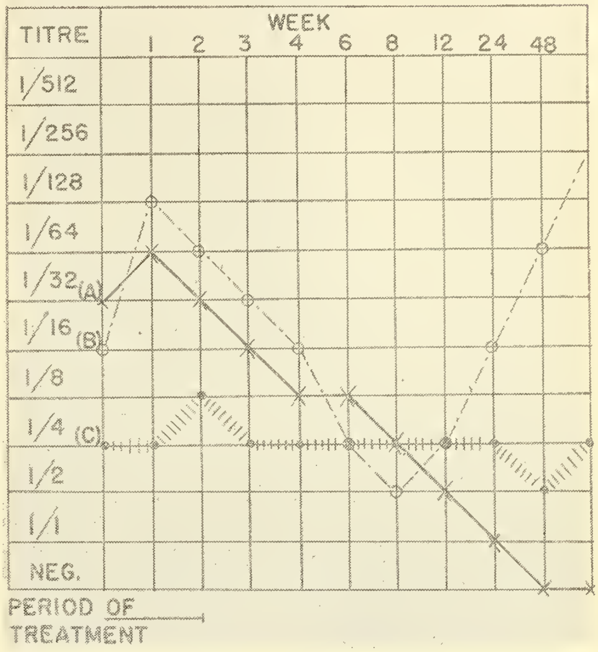
Titre	1-1	1-2	1-4	1-8	1-16	1-32	1-64	1-128	1-256	1-512	Over 1-512
Pct. of Specimens	11	16	21	17	16	11	6	1	less than 1	less than 1	occasional

THE USE OF QUANTITATION IN RAPID TREATMENT

In using titred specimens in conjunction with rapid treatment, the first specimen should be taken before initiation of treatment. The next few specimens should follow at weekly intervals, after which the intervals between specimens could be increased, the interval depending somewhat on problems involved in each individual case. Several illustrative titre curves are charted below:

Curve (A) is representative of a typical successfully treated case. An increase in titre will be noticed following initiation of treatment. This is a common occurrence. Curve (B) illustrates a situation in which either recrudescence or reinfection occurred as evidenced by an increasing titre beginning at the eighth week. Curve (C) is a curve of the "serologically fast" type. The slight variations of titre might be explained by changes in the patient's blood not related to syphilis or to variations in the sensitivity of test on repeat occasions.

CHART I



It is here emphasized that treatment, if complete cure rather than control of symptoms is desired, should not be abbreviated to less than the amount shown by experience to be necessary to produce a permanent cure in the vast majority of similar cases. Quantitative serology is useful in the early detection of treatment failures, but should not serve as an influence to abbreviate treatment.

SYPHILIS IN NEWBORN

In case of children born to syphilitic mothers, the initial serology of the child's blood is not a reliable indication of the child's status with reference to infection. In some instances a positive may be secured on a nonsyphilitic child as a result of absorption from the mother. In other instances a syphilitic child may initially have serologically negative blood. Types of curves that might be expected in bloods of infants are illustrated below.

Curve (A) shows a positive with titre diminishing on successive specimens and becoming negative in a few weeks without treatment. Such a curve might be encountered in case of a non-syphilitic child born with positive serology.

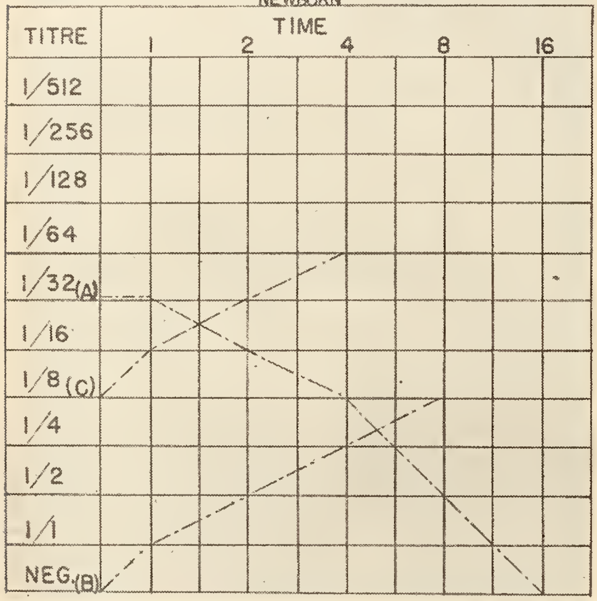
Curve (B) shows what might be expected

of a syphilitic child born with negative serology.

Curve (C) is representative of a syphilitic child born with positive serology. As contrasted with curve (A), successive specimens show increasing titres.

CHART II

REPRESENTATIVE CURVES OF TITRED SPECIMENS FROM NEWBORN



TITRES IN RELATION TO DURATION OF DISEASE

Ordinarily serological response to treatment can be anticipated in inverse ratio to the duration of disease at the time of beginning treatment. In primary or early secondary syphilis a rapidly decreasing titre as a response to treatment is usual. Treatment initiated later in the disease is followed by slower serological response. In infections that have existed for years the response is even slower, conditions approaching the "serological fast" state are encountered.

TITRE CURVES IN "SEROLOGICAL FAST" CASES

In such cases successive specimens show practically a straight line curve uninfluenced by treatment. Such deviations from the straight line as may occur are usually the result of fluctuations in the sensitivity of the test or slight variations in the patient's blood as a result of diet, time of specimen in relation to meals, aging of specimen before test or partial hemolysis.

TITRES IN NON-SPECIFIC REACTIONS

Positive serological tests sometimes are encountered in conditions other than syphilis, especially with certain flocculation technics. If the positiveness is caused by a temporary condition such as vaccination, or malaria, the titre curve will drop without anti-syphilitic treatment. If, on the other hand, a more permanent condition of the patient causes the positiveness, a curve of the unchanging type, similar to "serological fastness" will be encountered. This paragraph is not intended as an adequate discussion of non-specific serological tests.

SPECIMENS FOR TITRED TESTS

It is to be remembered that any change in the composition of blood influences its reactivity to serological tests, especially those of the flocculation type. The mechanism of this test lies in the realm of colloid and physical chemistry and the reaction is influenced by the same factors that influence other colloidal phenomena. Factors such as soaps, other protective colloids and particles of like electrical charge to the particles being precipitated in the test tend to mask the test and lessen apparent titre. Other factors which include negative charged ions, certain proteins or their degradation products and an adverse pH, tend to promote the reaction and increase titre.

Submit adequate specimens, taken with clean and dry apparatus and forward so as to reach the laboratory with minimum delay. Preferably take specimens when they will not include digestion products or be influenced by alcohol or anaesthetics. Remember that blood changes as a result of fever might be reflected in quantitative results.

CONCLUSIONS

1. Regular test procedures, preferably based on the use of multiple tests, should be used to determine if a specimen is positive or negative.

2. Titres should be used only to show changes of degree of positiveness in a series of specimens.

3. If possible, all specimens of a series should be submitted to the same laboratory and subjected to the same quantitative test procedure.

4. Adequate specimens, collected under uniform conditions and forwarded so as to reach the laboratory in good condition are

necessary.

5. The greatest usefulness of titred tests is in connection with rapid treatment. Keep a chart of each case and plot a curve.

6. Don't expect reports of titres on negative specimens.

7. The amount of syphilis a patient has cannot be measured by quantitative tests.

* * *

1,500,000 DEVELOP PEPTIC ULCERS IN ANY 10 YEAR PERIOD

Andrew C. Ivy, noted physiologist and executive vice president of the professional schools of the University of Illinois in Chicago, estimates that 1,500,000 persons in the United States develop peptic ulcers during any 10 year period.

Writing in the December 28 issue of The Journal of the American Medical Association, Dr. Ivy claims that from five to 12 per cent of the population become afflicted with ulcers, one of mankind's greatest scourges, during a modern lifetime. "Not all may consult a physician," he says, "because of the mild character of their symptoms."

Stomach ulcers, known properly as peptic ulcers, have challenged the medical profession ever since 1772 when John Hunter, London pathologist and surgeon, discussed the question of why the stomach does not digest itself.

"The problem of peptic ulcer challenges medical science today," Dr. Ivy writes, "because among the chronic diseases it ranks tenth as a cause of death and twelfth as a cause of days lost from work."

Dr. Ivy's study, entitled "The Problem of Peptic Ulcer," reveals these facts:

—The death rate per 100,000 in the United States from peptic ulcer has increased from 2.7 in 1900 to 6.8 in 1943.

—The death rate in men for both gastric and duodenal ulcer has increased since 1920, whereas that for women has decreased.

—More people die from gastric than from duodenal ulcers.

—Ninety per cent of the cases of peptic ulcer are first diagnosed after the age of 20.

—The most discouraging characteristic of peptic ulcer is its likelihood to recur.

—The adherence to a strict therapeutic regimen solely is not certain to help, unless the patient is able to live a "calm life."

—The results of years of peptic ulcer study have provided "the blocks of a jigsaw puzzle which at present cannot be fitted together to provide an adequate picture of the cause or causes of the disease."

—Data support the commonly expressed statement that "chronic" duodenal or gastric ulcer in man usually heals rapidly under conditions of strict medical management.

—A physician should not be too hasty in accepting a casual relationship between social stress and peptic ulcer, remembering that the Abyssinians and the Hindus of southern India have a high incidence of gastric ulcer.

—Most patients with ulcer will not learn to live a "calm life" and remain on a strict management regimen.

—Physical and mental rest is an important "favorable condition" for healing of the "chronic" peptic ulcer.

—Surgical methods for the prevention of ulcer recurrences are to be considered as stopgaps, to be used until some more effective medical method is discovered.

Dr. Ivy prepared his Journal paper some time ago and since then he has announced the development of a new hormone, enterogastrone, which scientists hope will heal ulcers and also prevent their recurrence. The hormone is derived from the mucous lining of the upper intestinal tract of hogs.

Work in developing this colorless substance was done at Northwestern University medical school, where Dr. Ivy, prior to assuming his present post last September, had headed that institution's department of physiology since 1925.

Dr. Ivy says that scores of patients have been treated with this hormone and "the results are sufficiently encouraging to show this method of attack on the problem of the prevention of recurrences of peptic ulcer is worthy of further study."

MEDICINE'S POLICE POLICY

The acts of an individual reflect on an entire group, be it a profession, business, or guild. Those of loose-thinking habits, however, too often form opinions without due investigation.

George Washington put it well when he said: "In a free and republican government, you can not restrain the voice of the multitude. Every man will speak as he thinks, or, more perfectly, without thinking, and consequently will judge of effects without attending to their causes."

Nevertheless, no group should turn a deaf ear to complaints relating to the conduct of its members, be it collectively or individually. Prompt investigation will often prove the unjustness of an accusation. The complainer is set aright and a derogatory voice silenced. By the same token, a just complaint, fully investigated, and the recreant brought to heel, leaves the accuser with the feeling that he has seen a healthy method of self-policing in action.

The medical profession has always been self-policing. It has the machinery for tracing down complaints regarding alleged misconduct of its members. The Board of Censors of a County Medical Society is given wide powers in this regard.

Some county medical societies are more active in these matters than others, as evidenced by reports in county society bulletins. It appears that there is an increasing tendency to keep the medical house clean by family effort, lest there be complaints by the neighbors which might eventuate in policing by public servants. If one member of the family persists in dirtying up the rooms, it might be well to have him live in a separate domicile for a while. The neighbors will back the family in such disciplinary action and will see that the hired policeman minds his business on another street. That is good "public relations."—Onondaga County (New York) Medical Society Bulletin.

The Nebraska State Medical Journal

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

The Annual Mid-Winter Meeting of the Council of the Nebraska State Medical Association will be held at the Hotel Cornhusker, Lincoln, February 16, 1947. The meeting will be called to order at 10 a.m.

IMPORTANT NOTICE: RE MEDICAL SLYD-RUL ENCLOSED IN DECEMBER ISSUE OF CIBA SYMPOSIA

Due to manufacturers' error in placement of decimal point, conversion from 0.4 grain to gram is incorrect. It should read 0.025 gram, not 0.25. Please make correction by replacing present celluloid table with corrected temporary paper table now being mailed to you.

Ciba regrets this error which causes you inconvenience, and will replace the temporary slide with a new celluloid table as soon as possible.

An important meeting of the Nebraska Cancer Research and Educational Society will be held in Lincoln, Sunday evening, February 16th, 1947, at 6:00 p.m., Cornhusker Hotel. (Same day as Councilors' winter meeting). There will be a business meeting with committee reports and election of officers. All committee members, advisors and officers are expected to attend and all members of the Nebraska Cancer Research and Educational are invited. (All members of the Nebraska State Medical Association are members of the Nebraska Cancer Research and Educational Society).

The American Academy of Allergy is holding a refresher course in Omaha, Nebraska, the week of May 19th, 1947. The course will be given at the University of Nebraska, College of Medicine, and will be under the auspices of the Allergy Department.

The first day will cover hay fever, the second day will cover allergic rhinitis, the third day bronchial asthma, the fourth allergic skin manifestations, and the fifth day will be for other allergies. The following will participate in this meeting: On Monday Professor Noel Hansen, University of Nebraska, College of Agriculture, Lincoln, Nebraska; Dr. Herbert J. Rinkel from Kansas City, Missouri; Dr. Milton Cohen, Associate Editor, Journal of Allergy, Cleveland, Ohio; and Mr. O. C. Durham, Chief Botanist, Abbott Laboratories, Chicago, Illinois. These men will participate also in the Tuesday meeting with the addition of Dr. French K. Hansel from St. Louis, Missouri. On Wednesday Dr. Francis M. Rackemann, Associate Editor, Journal of Allergy, Boston, Mass.; Dr. John M. Sheldon, Associate Professor of Medicine, University of Michigan Medical School, Ann Arbor, Michigan; and Dr. French K. Hansel, Editor in Chief, Annals of Allergy, St. Louis, Missouri. On Thursday Dr. Charles H. Eyermann, Assistant Professor of Clinical Medicine, School of Medicine, Washington University, St. Louis, Missouri; Dr. John Sheldon; Dr. Samuel M. Feinberg, Associate Professor of Medicine, Chief of Division of Allergy, Northwestern University Medical School, Chicago, Illinois; and Dr. Ruben Nomland, Professor of Dermatology, University of Iowa, College of Medicine, Iowa City, Iowa; and one other speaker yet to be announced. In addition to the out-of-town speakers, Dr. John R. Schenken, Pathologist at the Methodist Hospital, Omaha; Dr. Perry Tollman, Pathologist at the University of Nebraska, Omaha; Dr. J. Hewitt Judd, Professor of Opthamology, University of Nebraska, School of Medicine; Dr. Harold Lueth, Dean of the University of Nebraska, College of Medicine, Omaha; and Dr. E. L. MacQuiddy, Associate Professor of Medicine, University of Nebraska, College of Medicine, will participate.

Attendance at these meetings is open to all practitioners of medicine in this section of the country but will be limited to forty-five registrants. The charge for the course will be forty dollars. The course will begin each day at 8:30 a.m. and end at 5:30 p.m. with the exception of Tuesday and Thursday. On these days there will be an evening dinner meeting followed by round table discussions with questions asked from the audience. These dinners and round tables will be held at the Hotel Fontenelle, Omaha, Nebraska.

Arrangements for reservations have been made for the men attending this refresher course at the Hotel Fontenelle. Requests for further information regarding this course should be sent to: The Office of Dean, University College of Medicine, Omaha, Nebraska.

POSTGRADUATE COURSE IN RADIOLOGY

Chicago—One hundred radiologists will be selected to attend the postgraduate courses in radiology to be conducted March 30 through April 4 in Philadelphia by the American College of Radiology. Preference will be given to radiologists who served in World War II. Second preference will be given to qualified applicants who were unable to obtain admission to last year's course in Philadelphia. The course is sponsored jointly by the American College of Radiology and the Philadelphia Roentgen Ray Society.

Because of the popularity of the course given in Philadelphia last year, many radiologists were unable to be enrolled. Numerous requests for a second similar course have prompted the committee to sponsor it again this year.

There are two main considerations which have impelled the committee to undertake this program:

Although national and local scientific societies in the specialty of radiology have maintained a consistently high standard in their regular meetings, numerous inquiries have indicated an obvious need for intensive courses of a more academic nature. Also, veteran medical officers have been felt to be in need of an intensive review before returning to private practice. Many of these men were denied the opportunity for normal clinical practice or study which would keep them abreast of the rapid progress in the specialty of radiology.

Some of the subjects to be studied are: Certain neoplastic and inflamatory diseases, carcinoma of the head and neck, dosage caluculation and tumor sensitivity in radiation therapy, carcinoma of the breast, blood and hemopoetic diseases, carcinoma of the genital and urinary tract, benign and malignant diseases of the skin.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC.

The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 7, 1947.

Arrangements will be made so far as is possible for candidates to take the Part I examination (written paper and submission of case records) at places convenient for them. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held June 1-7, 1947, at Pittsburgh, Pennsylvania. Notice of the exact time and place of the Part I and Part II examinations will be sent all candidates well in advance of the examination date.

For further information and application blanks address Paul Titus, M.D., Secretary, 1015 Highland Building, Pittsburgh, Pennsylvania.

NEWS and VIEWS

The following resolution was presented to the House of Delegates of the American Medical Association at its Supplemental Session held in Chicago, December 9 to 11, 1946. This was referred to the Reference Committee on Legislation and Public Relations and the Reference Committee recommended to the House that it be referred to the Board of Trustees of the Association for future action.

The House of Delegates adopted the recommendation of the Reference Committee.

"Whereas, Public relations, as pertains to organized medicine, has a most important field of effort in reaching and giving information to and receiving suggestions from the rank and file of doctors who give medical service to the public the country over; and

"Whereas, Efforts in this direction have been so successfully carried on by the secretaries' conferences sponsored by several of the state medical societies; and

"Whereas, There is no national group at present functioning in this capacity; therefore be it

"Resolved, That the American Medical Association sponsor a national conference of officers of county medical societies which shall meet yearly just preceding the annual session of the House of Delegates of the American Medical Association for the purpose of bringing to the annual session the diverse problems of the various localities, the exchange of ideas which would be helpful to the state conferences, in such matters as voluntary health insurance plans, hospitalization plans, construction of new hospitals in needed places, and improvement in medical facilities, rural health activities, nursing activities and the activities of the various Councils of the American Medical Association."

The Board of Trustees after consideration of the resolution plans to have a meeting of this nature in Atlantic City, New Jersey, probably on Sunday, June 8, 1947.

Successful isolation of what they believe to be nearly pure polio virus has been accomplished by two Stanford University scientists, Dr. Hubert S. Loring and Dr. C. E. Schwerdt, it was announced January 11 by the university.

Laboratory tests, including photographs taken through an electron microscope, indicate that the isolated virus is 80 per cent pure or better, according to the two Stanford chemists.

The experiments, carried on in the Department of Chemistry laboratories at Stanford, were financed by the National Foundation for Infantile Paralysis, from funds allocated to research on polio.

Production of purified virus is seen as an important step in the long and to date unsuccessful laboratory struggle to produce a vaccine effective against poliomyelitis.

Now that a virus which is relatively pure is available, the experimental door is open, Dr. Loring pointed out, to render the pure virus non-infectious by chemical or physical treatment, and, the scientists hope, to produce a concentrated vaccine free of the impurities which have plagued previous polio vaccine experimenters.

He cautioned against any conclusion that isolation of the pure virus will lead necessarily to production of a successful vaccine against polio, and stated that a long and exacting experimental path lies ahead.

First, with the virus produced from a single type of polio at Stanford—and there are many different polio strains—the two scientists will attempt to produce a vaccine effective for cotton rats, which happen to be susceptible to the type of polio—known as the Lansing strain—on which Dr. Loring and Dr. Schwerdt have experimented since 1943.

Then similar vaccines must be prepared from other strains to which other experimental animals, such as mice, are susceptible.

Later the vaccines must be tried on monkeys, which are susceptible to most strains of polio, before the final stage can be reached when the vaccine can be tried on human beings.

According to the Stanford scientists, one of the contributions to the knowledge of polio which has resulted from this work is that scientists now know what the virus looks like, and what its chemical characteristics and properties are.

Dr. Loring, who is associate professor of biochemistry at Stanford, has been a member of the faculty since 1939. He received his A.B. degree at Pomona College, Calif., in 1929; his M.S. in 1930 and his Ph.D. in 1933 at the University of Illinois. He has been a Fellow and instructor in biochemistry at George Washington University and a Fellow and research assistant at the Rockefeller Institute for Medical Research in Princeton, N. J.

Dr. Schwerdt, a research associate in chemistry, received his A.B. degree at Stanford in 1939 and his A.M. degree in 1940. He received his Ph.D. degree at Stanford in 1946.

NERVOUS REACTIONS

Seven distinct nervous reactions developed among the men who flew "the hump"—the air supply route from India to China across the Himalayas—during the war.

Continuous service on this cloud road probably provided the most severe nerve strain endured by Army air men and study of the observed symptoms, as reported to the Surgeon General's Office by Major William M. Jeffries of the Medical Corps, a Flight Surgeon of the Air Transport Command in the China, Burma, India Theater, discloses what might be expected when men are pressed toward the limits of human endurance.

The fact that many showed no symptoms at all, Major Jeffries stresses, is a high tribute to the men who composed this force.

The "hump" route, as he describes it, was over a series of high, jagged mountain ranges divided by rivers flowing through precipitous gorges. There were no emergency landing fields. Much of the way was over Jap-held territory. Storms frequently blew ships far off course. Icing conditions were often bad, yet de-icing equipment had been removed from most planes. Flights were made at altitudes of from 17,000 to 35,000 feet, yet oxygen equipment was often inadequate; usually passengers had none. Landing fields were endangered by low ceilings and ground fog. Surrounding high mountains allowed no margin for error on instrumental letdowns. On the ground, heat and humidity were so great that clothing was constantly drenched with perspiration. Prickly heat was almost universal and sleep almost impossible. There was constant danger from snakes and insects—certainly annoyances.

The combination of these facts, says Major Jeffries, was sufficient to shake the stability of some of even the soundest individuals, a large number of psychological disorders developed, and it was remarkable that more were not encountered.

Psychiatric cases were occurring in large numbers in Italy in the late winter and spring of 1944. This led to a clinical study of individual cases, and a study of men exposed to the same stresses who showed no abnormal nervous reaction.

There is no such thing, the psychiatrists conclude, as "getting used to combat." In the North African Theater, for example, practically all infantrymen who were not otherwise disabled ultimately became nervous casualties. There was genral agreement between both medical and line officers that 200 days in combat, not necessarily continuously, represented about the limit of human endurance. By that time if a man had not definitely "cracked up" he had become so jittery that he was ineffective as a soldier and a demoralizing influence among his comrades.

The British, however, believed that a man could stand 400 days and attributed the difference to their policy of pulling an infantryman out of action at the end of 12 days or less for a rest of at least four days. American infantrymen in Italy frequently stayed in combat continuously 30 to 40 days and occasionally as long as 80 days.

The report recommends that the limit of combat for any infantryman be 210 days—and this only in extreme emergency. It also urges that special recognition and privileges be given infantry soldiers, that greater efforts be made in indoctrinating soldiers and the categories and channels of evacuation be clarified for both line officers and Medical officers to the end that true malingerers will not be evacuated and severe psychoneurotics not retained in their combat units.

The war ended before recommendations of this report could be put into practice.

—From News Notes, Office of the Surgeon General, Technical Information Division, Washington, D. C.

The Nebraska Cancer Research and Educational Society announces the availability of two, five-hundred dollar ($500.00) grants for the year 1947 to be awarded to individuals or groups residing in Nebraska who need such funds in carrying out clinical or research investigations related to cancer. The rules and procedures for applying for these grants are given below:

PURPOSE AND AMOUNT OF GRANTS:

There will be two $500.00 grants available in 1947 to be awarded for the purpose of assisting in clinical or scientific research problems related to cancer.

ELIGIBILITY:

All physicians legally qualified to practice in Nebraska; medical or premedical students persuing regularly prescribed course of study in Nebraska colleges or medical schools; others residing in Nebraska giving evidence of suitable resources and equipment for supporting the needs of their problem when used with the funds of the Nebraska Cancer Research and Educational Society will be eligible for the above grants.

APPLICATIONS:

Applications must be made in writing to any of the three members of the committee on grants stating an outline of the proposed problem, the need for funds and how such will be used. There should be an indication of other laboratory facilities available for carrying out the problem and an estimate of the time that will be required for completion of the problem.

TIME FOR APPLYING:

The committee on grants will review all applications for the grants for 1947 on March 1st, 1947, therefore, the abstracts should be in the hands of the committee by that time. In as much as the committee need not accept any of the applications, and if the total amount of grants is not made from these applications received by March 1st, the committee will consider another group June 1st, 1947, and again September 1st, 1947.

PUBLICATION:

The publication of experimental work and data performed under this fund should be approved by the Nebraska Cancer Research and Educational Society Committee on Grants and if deemed appropriate for publication should include a footnote of explanation that the funds from the Nebraska Cancer Research and Educational Society were used in connection with this project.

COMMITTEE ON GRANTS:

James E. M. Thomson, M.D., Chairman, Lincoln.
Harold C. Lueth, M.D., Omaha.
Charles M. Wilhelmj, M.D., Omaha

FRANK H. TANNER, M.D., Secretary,
Nebraska Cancer Research and
Educational Society.

BUY U.S. BONDS

HOSPITAL NEWS

OMAHA—Walls of the new 100-bed Children's Memorial Hospital have risen to the second floor. Construction work is approximately three months behind schedule due to delayed arrivals of materials, and completion of the project now is anticipated in June, 1947, at a total cost of $625,000. Donations to date are about $600,000.

Plans for a long-contemplated expansion and modernization of facilities at St. Catherine's Hospital are nearing completion, according to Sister Mary John, R.S.M., Administrator.

Working under difficult conditions because of a shortage of bed space, the hospital authorities plan to add 50 to 75 new beds to the institution. Other features of the program include plans for a new maternity section, additional laboratories and pediatrics wards, new kitchen facilities and a modern laundry. An appeal currently is being made to the general public for funds to finance the work.

Another phase in the new building program of the Sisters of Mercy is the sale of St. Rita's Home, an Omaha landmark at 18th and Cass streets, which they have owned since the four-story brick structure first was opened in 1877 as St. Catherine's Academy. The building has been sold for $20,000 to the Lederle Laboratories, Inc.

KEARNEY — Good Samaritan Hospital has installed a new Roger-Anderson table, the very latest in orthopedic tables and the first of its particular kind in the state. It is adaptable to all the newer procedures in fracture treatment and bone surgery and fills a long existant need in the community. Cost of the unit was $1,965. Other equipment recently installed includes new operating tables, urological table, modern surgical lighting and a completely new x-ray assembly.

Alterations and additions to the crowded hospital are planned as soon as building conditions permit.

Remodeling is under way at the former Kearney Military Academy building in preparation for the opening of a new 50-bed institution to be operated as Lutheran Hospital. An order has been placed for equipment, which is expected to cost approximately $50,000.

LINCOLN—A remodeling project to provide new laboratory facilities is now nearing completion at St. Elizabeth Hospital, Sister M. Asella, O.S.F., R.N., Administrator, has announced. The new laboratory will be located on the first floor of the east wing of the institution. Work was completed December 1 on the acoustical treatment of ceilings in corridors of the institution's four stories, in the delivery rooms of the maternity department and other service rooms from which noise usually emanates in hospitals.

FREMONT—Work is progressing on the addition to Dodge County Hospital, which will give the institution another twenty beds. Furnishings for the additional facilities for patients already are on hand and it is hoped to have the project completed by the first of the year.

INCREASED QUARTERS OF THE BLUE CROSS AND NEBRASKA MEDICAL SERVICE COMPLETED

Remodeling of office quarters of the Blue Cross and Nebraska Medical Service, made necessary by increased business, is now completed, according to J. H. Pfeiffer, Executive Director. Offices of the two Associations, now among the most attractive in the building, occupy approximately 3,000 square feet of space, one-half the third floor of the City National Bank Building.

Mr. Pfeiffer also reported the addition of two representatives, one of whom is Mr. Orville Farrand, formerly with the Association before his entry into military service, and the employment of a Public Relations Director, Miss Hazel V. Doane, who assumed her duties on December 1. Miss Doane plans to visit, at a very early date, each hospital administrator in the interests of the two Associations.

AUBURN — Dr. Edward Cline has purchased the Auburn hospital. The hospital was established by the late Dr. C. A. Lutgen, widely-known surgeon of this city, in 1913. The building was at first a five-room frame dwelling. At present the hospital has 16 beds.

SEWARD—T. H. Wake, Jr., was chosen chairman at an organizational meeting of citizens here to report with a committee recom-

ANNUAL DUES OF STATE MEDICAL ASSOCIATIONS

State	No. of Members*	Full Time Office	No. of Employees	Publish Journal	Dues			Assessment		
					1945	1946	1947	1945	1946	1947
Alabama	1,588	no	0	yes	$ 5.00	$ 5.00	$ 5.00	0	0	0
Arizona	392	yes	1	no	30.00	30.00	30.00	0	0	0
Arkansas	1,111	no	0	yes	5.00	5.00	5.00	0	0	0
California	7,213	yes	7	yes	20.00	100.00	100.00	0	0	0
Colorado	1,173	yes	4	yes	18.00	18.00	50.00	0	0	?
Connecticut	1,903	yes	8	yes	20.00	20.00	20.00	0	0	?
Georgia	1,966	yes	1	yes	7.00	7.00	7.00	0	0	0
Idaho	320	no	0	yes	12.00	12.00	12.00	0	0	10.00
Illinois	8,386	yes	8	yes	8.00	8.00	10.00	0	0	?
Indiana	3,322	yes	6	yes	15.00	15.00	10.00	0	0	0
Iowa	2,467	yes	4	yes	10.00	10.00	15.00	0	0	0
Kansas	1,583	yes	5	yes	15.00	15.00	15.00	0	0	0
Kentucky	1,944	yes	3	yes	5.00	15.00	15.00	0	0	0
Louisiana	1,571	yes	3	yes	25.00	25.00	25.00	0	0	0
Maine	758	yes	2	yes	12.00	12.00	35.00	0	0	0
Wash., D. C.	909	yes	12	yes	30.00	30.00	30.00	0	0	?
Michigan	4,553	yes	10	yes	12.00	12.00	12.00	10.00	25.00	25.00
Minnesota	2,978	yes	7	yes	20.00	20.00	20.00	0	0	0
Mississippi	1,056	no	0	yes	5.00	5.00	5.00	0	0	0
Missouri	3,281	yes	6	yes	8.00	8.00	8.00	7.00	7.00	7.00
Nebraska	1,117	yes	2	yes	15.00	15.00	15.00	0	0	0
New Hampshire	551	no	0	yes	6.00	6.00	10.00	0	0	0
New Jersey	4,233	yes	8	yes	22.00	20.00	25.00	0	0	0
New Mexico	290	no	0	yes	10.00	10.00	20.00	0	0	0
New York	18,157	yes	45	yes	10.00	10.00	10.00	0	0	0
North Dakota	414	yes	2	yes	35.00	35.00	35.00	0	0	0
Ohio	6,725	yes	8	yes	7.00	7.00	15.00	0	0	0
Oklahoma	1,494	yes	6	yes	12.00	12.00	22.00	0	25.00	0
Oregon	909	yes	2	yes	20.00	20.00	40.00	10.00	10.00	0
Pennsylvania	9,865	yes	15	yes	20.00	20.00	15.00	0	0	0
Rhode Island	588	yes	6	yes	25.00	25.00	40.00	0	0	?
South Dakota	352	yes	2	yes	15.00	15.00	50.00	0	0	0
Tennessee	1,774	yes	4	yes	6.00	15.00	15.00	0	0	0
Texas	4,590	yes	12	yes	20.00	20.00	20.00	0	0	0
Utah	482	yes	1	yes	15.00	15.00	50.00	0	0	0
Vermont	392	yes	2	no	20.00	20.00	20.00	0	0	0
Virginia	1,838	yes	4	yes	7.00	7.00	7.00	2.00	2.00	0
Washington	1,621	yes	3	yes	20.00	20.00	25.00	0	0	0
West Virginia	1,326	yes	3	yes	10.00	15.00	15.00	5.00	0	0
Wisconsin	2,412	yes	11	yes	33.00	33.00	35.00	0	0	0
Wyoming					7.50	7.50	25.00	0	0	0

* Number of members was obtained from 1942 A.M.A. Directory.
? Indicates figures not as yet decided upon by meeting of House of Delegates.

mendations concerning the proposed community hospital here. The organization is seeking to raise at least $100,000 for a 35-50 bed hospital. The American Legion post here this week set aside $1,000 for the project.

Three hundred and forty-five persons completed successfully the state examination in nursing and 216 others licensed by reciprocity during the past year according to the annual report of the state bureau of education and registration for nurses. The report was issued at the annual meeting of the board in December.

FEBRUARY PROGRAMS FOR A.M.A. CENTENNIAL BROADCASTS

The American Medical Association, in celebration of its centennial in 1947, is presenting a series of 26 N.B.C. dramatized broadcasts on the progress of medicine in the United States during the hundred years of the association's existence.

This is the 12th annual series of A.M.A.-N.B.C. broadcasts. The series, which began on Dec. 7, 1946, is entitled "Doctors—Then and Now" and the theme is "A Century of Progress by American Medicine."

States with similar histories and similar general characteristics are grouped together so that in all 25 regions are represented. One broadcast is devoted to medical progress in each of these regions, and the 26th and closing week will deal with the 100 years of the American Medical Association from a nationwide standpoint.

Each broadcast is divided into two parts. The first part consists of a dramatization dealing with historic physicians and medical events in the region and the second part features a speaker representing the medical societies in that region.

The four dates for February with topics are as follows:

Feb. 1—Illinois, Iowa; subject John Evans; the speaker, to be announced, will speak from station WHO at Des Moines.

Feb. 22—Nebraska; subject J. A. Waggoner; Dr. Roy W. Fouts, Omaha, will speak from station WOW at Omaha.

Subsequent programs will be announced as soon as they are ready.

STATE DEPARTMENT OF HEALTH

The State Department of Health and the State Department of Public Instruction are at work on plans for the Health Education Workshops to be held during June, July and August.

At the University of Nebraska the Workshop will include two groups. One of these, made up of health education instructors from the colleges, will outline a course for teachers colleges. The other group, including school administrators and teachers, will develop plans for a guiding course in health education for rural and elementary schools.

Other Health Education Workshops are being planned with the faculty at each of the four teachers colleges and at Hastings College.

Gertrude Church, Director of Public Health Nursing, has resigned to accept a field position with the U. S. Children's Bureau.

Twenty-five thousand of the 1947 Health Almanac have been distributed through the regular mailing list. Others are available on request.

One Day Health Education Institutes are being held with normal training groups in high schools and with groups of county and city teachers.

The educational program preceding the visit of the Tuberculosis Mobile X-ray Unit is enlarging and expanding. Citizens are taking an active part in the committee work necessary before the Unit arrives. They are also taking advantage of the opportunity to "get a chest x-ray and be sure that you're O.K."

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

December 31, 1946

Cash on hand December 31, 1946		$42,245.17
Receipts:		
From dues	$15,522.00	
From enrollment fees paid	382.00	
Taxes deducted from salaries	4.30	15,908.30
		$58,153.47
Disbursements:		
Administrative expense	$ 2,395.13	
Claims paid	8,297.00	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Advertising	9.42	
Printing and stationery	470.45	
Attorney	50.00	
Refunds	71.75	
Hospital records	12.00	
Home office travel and expense	336.35	
Collection expense	1.60	
Taxes paid	76.10	
Dues	10.00	
Medical Adviser	50.00	
Interest paid on 4% Surplus Notes	1,420.00	13,374.80
Cash on hand, December 31, 1946		$44,778.67
Bank Balance, December 31, 1946—		
Packers National Bank, Omaha		$43,766.67
First National Bank, Omaha		1,012.00
		$44,778.67

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

December 31, 1946

Assets:			
Cash in bank		$44,778.67	
Premiums in process of collection		5,884.78	
U. S. Bonds (cost plus accrued interest)		25,213.55	$75,877.00
Liabilities:			
Accounts payable, Blue Cross		$ 2,429.10	
Accounts payable, monthly invoices		227.12	
Accrued payroll taxes		17.40	
Claims payable		2,400.00	
Accrued audit expense		300.00	
Unearned premiums		23,304.79	
		$28,678.41	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	27,748.59		
		47,198.59	
			$75,877.00

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

December 31, 1946

Income:	December 1946	12 Months to Date
From dues	$13,113.00	$101,228.75
From enrollment fees	382.00	6,650.00
Interest accrued on U. S. Bonds	178.00	178.00
	$13,673.00	$108,056.75
Expenses:		
Claims	$ 7,997.00	54,013.00
Salary, Executive Director	150.00	1,800.00
Legal	50.00	570.00
Auditing	25.00	300.00
Advertising	-------	1,214.96
Printing	397.31	3,314.09
Stationery	-------	105.19
Insurance	-------	162.92
Administrative expense	2,429.10	19,317.73
Home office travel and expense	178.35	931.00
Professional fees	25.00	300.00
Collection expense	1.60	24.13
Taxes and licenses	3.50	132.10
Miscellaneous	16.11	85.76
Postage	-------	183.45
Dues	10.00	143.00
Medical Adviser	50.00	540.00

Interest on 4% Surplus Notes	1,420.00	1,420.00
Furniture and fixtures	-------	22.00
	$12,752.97	$ 84,579.33
Net Gain	$ 920.03	$ 23,477.42

MEMBERSHIP SUMMARY—DECEMBER, 1946

	Subscribers	Dependents	Total
1. Membership, December 1, 1946	8,619	12,279	20,898
Additions	489	567	1,056
Cancellations	174	240	414
Membership, January 1, 1947	8,934	12,606	21,540
2. Number of groups now enrolled			573
3. Number of groups adding during December			35

4. Members enrolled by salesmen:

M. W. Ashton (outstate)	161
W. F. Doherty (Omaha)	17
O. W. Farrand (Omaha)	34
S. M. Hall (outstate)	20
B. R. Lohnes (Omaha)	17
G. S. Malone (outstate)	121
C. H. Smith (Omaha)	80
Office	39
	489

DECEMBER ENROLLMENT BY COMMUNITIES

OMAHA—5 groups, 126 members: Banner Laundry; General Appliance Company; L. E. Nelson & Son; Omaha Fire Department No. 23; Carl E. Wallin Electric Company.

GRAND ISLAND—9 groups, 105 members: Cates Tire Company; Hall County Public Health Service; Leschinsky Studio; Little Men & Women's Shop; Lutheran Hospital; August Meyer & Sons; Nebraska Loan & Trust Company; Office Equipment Company; Wolbach Sons, Incorporated.

SUTHERLAND—1 group, 13 members: Kozy Homemakers.

SCOTTSBLUFF—2 groups, 25 members: J. Harvey Gott, Incorporated; Lewis Cafe.

STERLING—1 group, 20 members: Sterling Community Club.

FALLS CITY—1 group, 8 members: Journal Publishing Company.

HASTINGS—3 members.

FREMONT—1 member.

BEATRICE—2 members.

KEARNEY—1 member.

LINCOLN—5 groups, 89 members; Back to the Bible Broadcast; The Commonwealth Company; Lincoln Homes, Incorporated; State Home for Children; Drs. Whitham & Garlinghouse.

DAVID CITY—6 groups, 42 members: Coast to Coast Store; Council Oak Store; David City Post Office; David City Service Company; Geo. Schweser's Sons, Inc.; Trotter Stores, Incorporated.

NORTH PLATTE—2 groups, 10 members: Alexander Furniture Company; North Platte Barbers Union.

BRADY—1 group, 10 members: Brady Women's Club.

McCOOK—1 group, 12 members: Business and Professional Women's Club.

LUSHTON—1 group, 3 members: Lushton High School.

BENKELMAN—12 members.

OGALLALA—3 members.

NEBRASKA CITY—1 member.

VALENTINE—1 member.

SUPERIOR—2 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

December, 1946

Number of claims paid	166
Number of services rendered	187
Females	97
Males	69
Subscribers	57
Dependents	109

Type of Service	Number	Amt. Paid.
Anesthesia	2	$ 10.00
Appendectomies	24	2,400.00
Eye	5	165.00
Gall Bladders	3	350.00
General Surgery	4	135.00
Gynecology	17	1,440.00
Hemorrhoids	6	255.00
Herniotomies	2	200.00
Minor Surgery	26	199.00
Nose and Throat	5	180.00
Obstetrics	9	450.00
Orthopedics	17	884.50
Pathology	2	10.00
Radiation Therapy	1	15.00
Tonsillectomies	29	970.00
Transfusions	1	10.00
Urology	3	195.00
X-rays	20	204.50
Medical	11	109.00
	187	$ 8,182.00

Amount of claims in process of settlement $2,400.00

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

At the annual meeting of the Five County Medical Society held in Hartington, January 6, Dr. F. P. Dorsey, Jr., of Hartington was elected president. Dr. Max Coe of Wayne, vice president, and Dr. F. G. Dewey, Coleridge, secretary-treasurer.

Lincoln County Medical Society held its annual meeting at the Pawnee Hotel, North Platte, in December and elected Dr. Edward Stevenson, president; Dr. Stanley Drasky, vice president; Dr. A. E. Reeves, secretary-treasurer; Dr. E. E. Shaughnessy, censor; Dr. C. F. Heider, delegate; Dr. G. F. Waltemath, alternate.

Lancaster County Medical Society at its December meeting elected Dr. Roy Witham, president; Dr. Paul Royal, president-elect; Dr. Richard M. Still, secretary-treasurer. Executive council members: Dr. Floyd L. Rogers, E. W. Hancock, Dr. Frank H. Tanner and Dr. O. A. Reinhard; Board of Censors: Dr. E. W. Rowe, Dr. H. E. Flansburg and Dr. A. D. Munger; delegates: Drs. Hancock, Wegner, W. C. Becker, H. S. Morgan; alternates: Drs. Everett E. Angle, S. O. Reese, Fritz Teal and W. W. Carveth.

Scotts Bluff County Medical Society held its December meeting at Lincoln Hotel, Scottsbluff. Dr. John Rosenau, Scottsbluff was elected president; Dr. L. E. Hudgel, Scottsbluff, vice president; Dr. J. B. Schrock, reelected secretary-treasurer. Delegate: Dr. Max Gentry, and alternate: Dr. W. C. Harvey.

The annual meeting of the **Omaha-Douglas County Medical Society** was held Tuesday, December 10, 1946, in the Medical Arts Auditorium, and called to order by President Duncan at 8 p.m.

The following applications for membership were presented to the Society for vote, and it was moved, seconded and passed that they be voted upon as a group: Drs. Verne Hugo Alder, Charles M. Bonniwell, Joseph John Borghoff, Michael Crofoot, Nathaniel Charles Scott, G. Kenneth Muehlig, Edward Joseph Smith, and Willis Heacock Taylor, Jr. It was moved, seconded and passed that these physicians be elected to membership in this Society.

The guest speaker on the scientific program was Dr. James B. McNaught, professor of pathology, University of Colorado School of Medicine, Denver, introduced by Dr. J. Perry Tollman. Dr. McNaught's subject was "Trichinosis." Discussion by Dr. John R. Schenken, Pathologist, Methodist Hospital.

A.M.A. TO LAUNCH ANOTHER COMPLETE SURVEY OF MEDICAL SCHOOLS

"On recommendation of the Council on Medical Education and Hospitals of the American Medical Association, the Board of Trustees has authorized a new complete survey of the medical schools," according to an editorial in the January 11 issue of The Journal.

The American Medical Association has approved medical schools since 1907 and its list of approved schools is accepted by licensing boards, hospitals and other agencies for determining the acceptability of graduates.

The editorial states that the "Amerian Medical Association will undertake the entire financial responsibility for the survey. However, a collaborative effort with the Association of American Medical Colleges and the individual colleges is planned, so that the project can achieve the end of improved medical education in this country.

"Ten years have passed since the last previous complete survey was made, under the direction of H. G. Weiskotten, now chairman of the council. In the meantime there have been tremendous impacts on the entire structure of medical education, during the troubled war years and in the present era of reconversion to peacetime education. In the light of recent advances in medical knowledge and the nature of medical care a careful reevaluation of the curriculum is needed. Financially many schools are facing a crisis, since the increased income of the war years will be drastically reduced unless supplemented by funds from endowment, state or other sources. There is need for a thoroughgoing analysis of the educational resources of our medical schools as related to student enrollments.

"The aim of the survey will be that which has motivated every activity of the council in the past: to improve medical education and to render all assistance to medical schools to improve themselves, so that the quality of medical care in this country will continue to improve and the position of world leadership in medical education occupied by the schools of this country will be maintained and strengthened."

DEATHS

Fred Allard Le Mar, Columbus. Born in Illinois in 1874. Came to Nebraska with his parents in 1887. Graduated from University of Nebraska Medical College in 1902. For a short time he was associated with Dr. Harold Gifford of Omaha in eye, ear, nose and throat; practiced in Ashland, Newman Grove and Humphrey, prior to locating in Columbus in 1931. Dr. Le Mar spent several months in the east in eye, ear, nose and throat. Dr. Le Mar served in the U. S. Army Medical Corps as a captain in World War I, and was dismissed as a major. He died January 2, 1947, and is survived by his wife and a son, George D. Le Mar of Detroit.

Charles C. Conlee, Cook. Born in Illinois in 1884. Graduated from Chicago College of Medicine and Surgery in 1915. Located in Cook in 1916. Dr. Conlee, according to the newspaper report, died suddenly in his office on December 27, 1946. Surviving are the widow and four children.

BUY
U.S. SAVINGS BONDS

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. J. W. Douglas, Lewiston, has located in Joplin, Mo.

Dr. D. M. Flett of Kimball has moved to Cheyenne, Wyo.

Dr. Herbert Jackman, formerly of Louisville, is located at Richmond, Va.

Dr. James E. Lewis recently discharged from the Army Medical Corps is located in St Paul.

Dr. Charles H. Breuer, age 80, formerly of Lincoln, died in San Jose, Calif., on December 18, 1946.

Dr. Edward R. Slavik, a graduate of Creighton University Medical School, has located at Fullerton.

Mrs. Margaret A. Henry, widow of the late Dr. E. C. Henry of Omaha, died in California the latter part of December.

Dr. Howard Liston of Elmwood is enroute home from the Philippines and plans to practice medicine with his father in Elmwood.

Dr. J. E. M. Thomson of Lincoln addressed the Schuyler Chamber of Commerce in early January on his trip to Czechoslovakia.

Dr. Samuel I. Fuenning, a graduate of the University of Nebraska Medical College, is the new director of the student health service in Lincoln.

Dr. Wilfred Shaw, formerly of Hastings, is now connected with the Veterans Administration at the Birmingham General Hospital, Van Nuys, Calif.

Sympathy of the Journal goes to Dr. F. F. Teal of Lincoln, on the recent death of his mother, and to Dr. C. J. Moore of Grand Island, on the death of his mother, Mrs. Ollie Butterfield.

Dr. W. Riley Kovar of Clarkson is doing postgraduate work at the University of Pennsylvania Medical College in Philadelphia. Dr. Kovar is specializing in obstetrics and gynecology.

Dr. G. W. Dean, a graduate of the University of Nebraska Medical College, recently released from the U. S. Naval Reserve, has become associatd with Dr. A. A. Larsen of South Sioux City.

Dr. Earle G. Johnson, following attendance of the House of Delegates of the American Medical Association early in December, and Mrs. Johnson, visited their son, Dr. George Johnson, who is at Valley Forge General Hospital, Valley Forge, Pa.

Dr. W. Max Gentry, Gering, and Drs. John W. Gatewood and Charles A. Owens of Omaha, were received into fellowship in the American College of Surgeons at its Clinical Congress in Cleveland in December.

Be sure to listen over WOW, or WHO, or KGW, at 2:30 p.m., on February 22, when the A.M.A. Centennial Broadcast will cover Nebraska. Dr. Roy W. Fouts will speak. Subject: Dr. J. A. Waggoner. See bottom of page 85.

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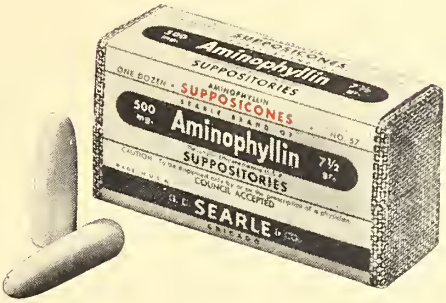

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Tuberculosis Abstracts

A golden opportunity may be lost if the physician who tells a patient that he has tuberculosis does not at the same time start him on the path to recovery by convincing him of the necessity for hospital treatment. The best interest of the patient is served when diagnosis, treatment and post-sanatorium care are an uninterrupted series of steps with the physician and the sanatorium guiding an understanding and cooperative patient.

THE PSYCHOLOGICAL MOMENT IN THE TREATMENT OF TUBERCULOSIS

The growing importance of preventive medicine and the wider recognition of emotional problems in illness emphasize the teaching role of the modern medical man. This is no new responsibility for physicians, though many have been inclined to forget it during a period when scientific discoveries have dominated the medical scene. The physician always deals with more than a collection of organs in varying degrees of dysfunction. He is concerned with a human being.

This human being who comes with his questions and his needs to the physician requires first of all, a diagnosis—that is a recognition and an evaluation of his physical state. Diagnosis may be difficult or easy. But even as the symptoms are being elicited, the physician is already seeking the facts and making the observations which will guide him when he acquaints the patient with the situation and prepares him for whatever treatment is necessary. It is then that the doctor functions primarily as a teacher and a friend. It is at this time that he may utilize to advantage the principles and practices of education.

"There is a time in the educational life of a child or of an adult," says one educator, "when one is in a position to learn efficiently and rapidly. Leaders watch for these teachable moments and utilize them to their fullest." The teachable moment is also called the psychological moment.

The time at which the physician acquaints the patient with his diagnosis, especially when it is that of a chronic disease such as tuberculosis, is such a moment. It is then that the fearful patient listens intently in order that no word of the physician, no implication of his tone or manner will escape notice or be given less than its true importance. It is often, at this time, that the foundation is laid for a successful recovery from tuberculosis. Sometimes, unfortunately, the opportunity is wasted, with disastrous consequences.

To assemble the facts, to weigh the possibilities, to help the patient face the reality and to be ready with constructive plans, calls for great skill on the part of the physician. He must make sure that the implications of the diagnosis are understood, yet he must be as optimistic as the facts warrant. He must stress the necessity for a drastic change in the life and plans of the patient, yet never proceed faster than the patient is ready to go along with him in his thinking. If handled hurriedly or casually, the patient may refuse to accept the diagnosis; he may delay or postpone treatment; or he may undertake his cure in so rebellious or apathetic

(Continued on page xxx)

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By STRYKER

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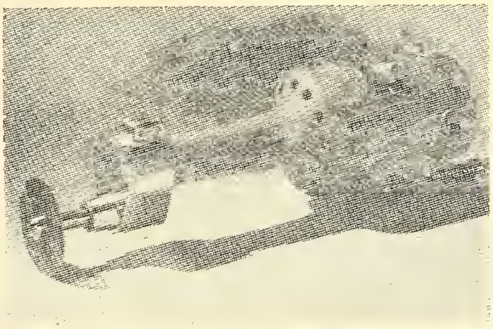

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TUBERCULOSIS ABSTRACTS

(Continued from page xxii)

a spirit that he nullifies the best efforts of the hospital and medical staff. What happens to an individual tuberculosis patient is often determined by the attitudes and teaching of the physician who first makes the diagnosis. It is then that treatment really begins. In tuberculosis the sequence of diagnosis, treatment and rehabilitation should always overlap and be woven together as a well-spliced rope.

What is the duty of the physician to the man or woman on whom he makes a diagnosis of pulmonary tuberculosis. It depends on his findings in the individual case. If the patient has active tuberculosis, it should be discussed as a communicable disease. With full consideration for the patient's intelligence, and temperament, the physician should tell the patient that he has tuberculosis. He should not overestimate nor underestimate; he should give the patient the facts as he then sees them.

It is quite possible, by properly taken stereoscopic pictures, to determine almost exactly how much tuberculosis the patient has. It is quite impossible by x-ray pictures alone to establish the degree of clinical activity, perhaps the most important aspect of the prognosis. The patient should be told that only after consideration of clinical and laboratory findings, of constitutional symptoms, and of his response to treatment as shown by the x-ray can any estimate of the length of time required for treatment be made.

Time does not usually permit the physician who makes the diagnosis to educate the patient in matters of tuberculosis. He should, however, never dismiss the patient without making sure that he has accepted the necessity for treatment. Until this acceptance is obtained, progress along other lines should not be attempted. This may take time and the help of the public health nurse and the social worker. A confirmatory diagnosis by a tuberculosis specialist may be required. But until hospital treatment is initiated the patient is under the care of the physician who made the diagnosis. The responsibility for sound and careful guidance, for the protection of the family and for interim treatment rests with him.

Once the patient is in the sanatorium, he is the responsibility of the sanatorium physician who becomes his patient's instructor in health problems. Only as the patient understands the character of the disease that he is fighting will he know why it is necessary for him to follow closely a definite program, foregoing seemingly harmless pleasures and avoiding undue activity.

An understanding of the tuberculosis hospital will help the private physician in preparing his patient for treatment there. It will also enable him to give more effective counsel when the patient returns from the hospital. The need of periodic check-ups persists in all "cured" cases of tuberculosis even after economic independence and normal life has been attained.

The patient whose cooperation is enlisted at the time of the diagnosis is apt to become a good

(Continued on page xxxvi)

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Two Weeks Surgical Anatomy and Clinical Surgery starting February 17 and March 17.
One Week Surgery of Colon and Rectum starting March 10 and April 7.
Two Weeks Surgical Pathology every two weeks.

GYNECOLOGY—Two Weeks Intensive Course starting March 17, April 14.
One Week Course in Vaginal Approach to Pelvic Surgery starting March 10 and April 7.

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TUBERCULOSIS ABSTRACTS

(Continued from page xxx)

hospital patient. Moreover, such patients usually not only do better under treatment but are more successful in staying well after discharge. The foundation for successful treatment in tuberculosis is laid when the doctor tells the patient that he has the disease. Psychologically, medically and economically, this may well prove to be the biggest moment in the patient's life.

—The Psychological Moment in the Treatment of Tuberculosis, J. D. Riley, M.D., American Review of Tuberculosis, October-November, 1946.

HEADACHES RESULTING FROM TENSION RAPIDLY RELIEVED WITH SEDATIVE

Sodium amytal will relieve such symptoms as headache resulting from tension or anxiety within one to five minutes when injected into the veins, according to three New York doctors writing in the current issue of the Archives of Neurology and Psychiatry, published by the American Medical Association.

The authors—Capt. Samuel Susselman and Capt. Fred Feldman, Medical Corps, Army of the United States, and S. Eugene Barrera, M.D., Albany, N. Y. —state that when symptoms are persistent and no organic cause can be discovered, the patient should receive an injection of sodium amytal. They claim that this sedative is of diagnostic value because it is a quick method of separating symptoms of organic disease from tension symptoms.

In more than 80 patients, treated over a period of nine months, the hospitalization period was shortened for many because of the use of this sedative.

"The patient in whom the test is clearly successful will have no residuum of distress but will express, often spontaneously, great relief and complete freedom from pain and a feeling of well-being," according to the physicians. They state that "this rapid lifting of discomfort is especially impressive to both patient and physician in cases of long-standing headache, which have remained unrelieved for months, or even years."

The authors point out that not only will this sedative relieve symptoms due solely to tension but it also will bring relief to patients with organic disease whose symptoms have been intensified by tension and anxiety.

The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, March, 1947 No. 3

EDITORIAL

RURAL MEDICAL CARE

On page 122 we publish an address by Mr. Albert S. Goss, manager of the National Grange, delivered at the National Conference on Rural Health, sponsored by the American Medical Association Division on Rural Health Service. The paper is published in an attempt to bring the readers of this Journal beliefs and opinions on the problems of rural medical care as expressed by Mr. Goss. It is interesting to know that similar opinions on these problems were expressed by other leaders of farmer organizations who participated in the Conference.

It is to the credit of these organizations, and to leaders of organized medicine, that a conference like the one held in Chicago, February 7 and 8, is made possible. The solution to the many problems is far away, to be sure. It is to be hoped, however, that there will come a gradual alleviation, and because of the willingness of farm groups and medical groups to get together at the conference table and talk over these mutual problems, with a belief that some day a solution may be found. There is no denying that the medical service now received by the Nation's food producers could stand improvement; there is likewise no doubt but what the medical profession is making a desperate attempt to aid in the distribution of better medical care to inhabitants of sparsely settled districts. The dilemma arises from the fact that some of these groups apparently are growing impatient with evolutionary methods for bringing about better medical service.

Thus, most of the speakers representing these farm organizations, while expressing distaste for government regulations of medical care in the rural areas, nevertheless seem inclined to believe that even government regulations may afford better conditions than now exist. It is difficult to conceive of such an attitude, especially in view of the recent chaos experienced by these people in their dealing with government directives on how to limit, how to increase, how to sell, and how to buy farm products. To us it seems as though this sector of our population does not stop to think that embracing governmental control, even in principle is like "jumping from the frying pan into the fire."

A hopeful note was sounded by many of these farm leaders in their favorable view on the expanding voluntary prepayment medical care plans. While the availability of rural medical personnel remains an insurmountable handicap at the present time, there is good reason to believe that better planning for medical expenditures among farm families, better roads, and expanding hospital facilities under private or governmental encouragement will ease the situation to a considerable degree.

HOW ARE YOU GOING TO KEEP THEM DOWN ON THE FARM?

Most of us remember this ditty which was so popular during and after the first World War. One of the speakers at the Conference on rural medical care paraphrased the title into, "How Can We Keep Doctors in Rural Areas?" To what extent shortages of physicians in rural areas actually exist is not quite clear; nor is the term "rural area" too clear. It is a well known fact that some rural districts, close to good sized communities, do not have a problem in availability of medical service. The large communities are generally well provided with physicians and hospital facilities. A physician will choose a community in which he can render the best medical service of which he is capable, and at the same time earn a respectable living.

The problem, however, is deeper than that, and it is a problem which is taxing the ingenuity of many medical educators. The general practitioner, it was stressed, is rapidly fading out of the medical scene. In the unanimous opinion of most of the speakers this has become especially evident since the end of World War II. It was brought out that many of the retired medical officers, young and middle-aged, have been flocking to the large urban centers, or to the larger hospitals for residencies in one specialty or another. This condition is thought to be attributable to a belief among general practitioners that family physicians, while lauded in literature, have lost their esteem in modern society.

Why this attitude exists, if it does, is somewhat difficult to understand. But on the assumption that it does exist, efforts are being made to restore the prestige of the general practitioner. The means by which these ends may be attained are not uniform. Efforts, however, are being made. Thus some educators think that a board of certification for general practitioners may help. Others advance the idea that a residency in general practice would not only help the general practitioner in his self-esteem, but what is of even greater importance, it would give him better training and, obviously, a better annual income. With this logical conclusion as a basis the University of Colorado has established two year residencies. Thus, a physician after a year of rotating internship is given the opportunity to serve one year on the surgical ward, and one year on the medical ward, with sub-specialties in these two main divisions included.

Limitations on specialties it is believed also may enhance the value of the general practitioner. One of the methods proposed, and it appears reasonable, is to limit admission to special residencies to physicians who have spent at least five years in general practice. This was suggested on the observation that physicians who had practiced, or who had been in the armed services for several years, somehow find it easier to adapt themselves in their residencies than do young physicians just completing their internships. It is further believed that after a man has been out five years or more he would be better fitted to decided what specialty, if any, he likes best rather than enter a field on the basis of chance, as is now so frequently the case. Whatever methods are employed, the fact remains that the general practitioner, well equipped to render service must return to the American medical scene.

PHYSICIANS IN CIVILIAN PRACTICE DURING WAR ARE URGED TO REPLY ON NEW QUESTIONNAIRE

Parallel with the advance of scientific warfare there has been a rapid advance in scientific medicine in the Twentieth Century. The huge strides made in our ability to destroy life and health in the recent war, however, have left many problems which remain to be solved. One of the most critical problems, as recognized by the House of Delegates of the American Medical Association in its December meeting, is that of providing care for the civilian population in the event of another national emergency.

The medical profession is wisely assuming its obligation to the American people to be prepared with facts and recommendations for any such future emergency. As a first step in this preparation, 5,000 questionnaires have gone out to a list of physicians, selected at random, who passed the recent war years in civilian practice.

On the basis of the answers to these questionnaires, sent out by the Committee on National Emergency Service of the A.M.A., it is hoped that facts may be determined as to how the civilian population was served in World War II. The questionnaires also provide an opportunity for those who were responsible for civilian care in those years, to indicate what changes should be made in the mobilization of medical service in future emergencies.

Five thousand questionnaires represents a very small percentage of the total number of physicians who remained in civilian practice. Dr. Edward L. Bortz, Philadelphia, chairman of the Committee on National Emergency Service, has appealed to every physician receiving the civilian questionnaire to respond promptly. The accuracy of the facts obtained and the soundness of the conclusions made by the study will be determined to a great degree by the cooperation which those receiving the questionnaire give the committee.

The committee received excellent cooperation from the 50,616 former medical officers

(Continued on page 92)

PRESIDENT EARLE G. JOHNSON
Grand Island

It was a pleasure to attend the mid-winter session of the Council of our Association at the Cornhusker Hotel on February 16. Few of us realize this group of men leave their homes and their practices, and in weather that is anything but attractive, on a day which was meant for rest, to go to Lincoln and deliberate over the affairs of organized medicine. Each year sees an increase in the number and significance of the problems which organized medicine faces. Each year, too, we somehow manage to cope with these dilemmas, and in my opinion, at least, there is little left to apologize for.

It would be difficult for me to depict the scope of the meeting, but I hope that each and every member will carefully study the minutes of the mid-winter session so that he may gain an appreciation of what has been accomplished. The minutes, according to the Editor, will appear in the April issue of the Journal.

EARLE G. JOHNSON, M.D.,
President.

who were mailed questionnaires last December on their experience in military service. These are now being analyzed and studied. The facts obtained will be used as a basis for recommendations to be made by the Committee in June to the House of Delegates.

With the cooperation of the 5,000 physicians who are now receiving questionnaires on their civilian experience, the committee will be able to complete the total study of how the medical profession can best serve our population, civilian and military, in the event of a future national emergency.

Every physician receiving one of these questionnaires has a professional and humanitarian duty to perform in completing it and returning it promptly. It is preferred that each sign his name, but if anyone wishes to remain anonymous, he may do so. The important thing is to get as broad a representation of facts, experiences, and opinions as possible.

THE WEST CENTRAL DIABETES ASSOCIATION

Diabetes, after many years of research and study, remains even today a great challenge to the medical profession. It is becoming clearer that diabetes is not just a simple deficiency of the pancreas but that many and varied factors have their influence on the body economy as a whole. The cause of diabetes in man remains unknown. It is apparent that the simple administration of insulin alone does not answer the whole problem. This is evidenced by the insulin-resistant or insulin-sensitive individual, by the associated disturbances in fat metabolism, and by the vascular phenomena that occur in the retina, the kidney, and the extremities. The enormity of this problem can easily be understood when all of the variables and mechanisms entering into carbohydrate metabolism are studied. Much time, money, and effort are being expended in an attempt to unravel the mystery of this metabolic error.

Diabetes, besides being a challenge to us from a purely abstract point of view, is rapidly becoming a major problem in public health. This fact is borne out by the statistics recently published by the Metropolitan Life Insurance Company. In 1940, there were over 500,000 known diabetics in this country, with about 4 millions who were actual or potential diabetics. In the decade 1940-50, it is estimated that there will be an increase in the diabetic population of 18%; and from 1940-1985, a period in which it is estimated the population of our country will increase by 22%, the diabetic population will increase at a rate over three times this rapidly or at a rate of 74%. The familial tendency in this disease only points toward ever increasing numbers of diabetics. In addition, statistics show that Nebraska rates 16th among the states in death rates due directly to diabetes with an incidence of 28.6 per 100,000. We in Nebraska can not minimize our responsibility in the control of this problem. Its seriousness is too obvious.

What is being done about it? The old time-tested principle that has always been the answer to such a problem is being used, i.e., organization. The central organization in this work is the American Diabetic Association, and its affiliated organizations throughout the country. This is an organization to encourage coordinated research, both clinical and laboratory; an organization to condense the voluminous reports of advances in our knowledge of this disease and to make these available to the profession; an organization to help in educating the public to the necessity of early diagnosis and sensible treatment.

It is for these reasons and purposes that the West Central Diabetes Association has been organized and incorporated in this state. The support of the profession and the public is being asked for this organization. Inquiries should be made to the Secretary, West Central Diabetes Association, 1414 Medical Arts Building, Omaha, Nebraska.

TUMOR OF RETINA IS HEREDITARY

Retinoblastoma, a tumor of the retina, the membrane of light perception in the eye, is hereditary, according to Harold F. Falls, M.D., of Ann Arbor, Mich.

Writing in the January 18 issue of The Journal of the American Medical Association, Dr. Falls points out that both eyes were affected with retinoblastoma in female identical twins. The condition appeared at approximately six months of age in both. Because the parents refused either surgery or x-ray treatment for the pair, a fairly rapid extension of the tumor within the skull led to the death of both children.

Dr. Falls states that "it is my sincere conviction that parents producing any child with retinoblastoma should be strongly urged to stop all child bearing. It is also advocated that any person surviving enucleation for retinoblastoma be sterilized."

The Purpuric States*

CHARLES A. DOAN, M.D.
Columbus, Ohio
Director of Medical Research and Dean - The College of Medicine,
Ohio State University

The problem of purpura, which I have chosen to discuss with you this morning, is one that has interested me for a good many years in terms of differential diagnosis.

Just as anemia is not a diagnosis in itself, so purpura is a sign common to a great many different clinical syndromes.

It is of course essential to know the underlying mechanism in any given bleeding syndrome in order to approach it from the standpoint of rational therapy. Tests have been developed in recent years which remove from speculation the various mechanisms which underlie the so-called purpuric states.

When a patient presents any bleeding tendency, the problem should first be approached from the standpoint of whether or not there is a thrombocytopenia.

In the thrombocytopenic group, differentiation lies between what has been called the essential thrombocytopenic purpuric mechanism, which has been shown to be caused by an overactive spleen, an hypoplastic bone marrow, and the so-called secondary or allergic thrombocytopenic purpura in which the megakaryocytic elements of the bone marrow have become sensitized to some foreign antigen. The allergic mechanism may also involve the vascular endothelium with increased permeability, and there may or may not be some deficiency in the circulating platelets depending upon the demand for platelets to plug the holes in the vascular system (Duke). There will not be the absolute thrombocytopenia that occurs when the megakaryocytes are sensitized in the bone marrow. The anaphylactoid or vascular allergic purpura is usually not associated with an extreme absence of platelets in the circulating blood.

Hypo-prothrombinemia and avitaminosis C must be considered in any syndrome in which the platelets are apparently normal, and I have not added here, but will discuss at the end of this paper, hemophilia, where there is an adequate number of platelets but the platelets, according to one theory at least, are defective so that they do not initiate coagulation as they should.

Associated with any fall in the platelets or absence of platelets is a prolonged bleeding time. Platelet counts lower than 50,000 per cubic millimeter usually result in prolonged bleeding. Coagulation time, on the other hand, is normal, and that is the differential diagnosis between hemophilia and true thrombocytopenic purpura. There is a delay in the clot retraction for twenty-four to forty-eight hours and sometimes there is no retraction even for longer periods.

Always there should be a study of the sternal bone marrow in any thrombocytopenic purpura to determine the peripheral or central origin. A bone marrow study will usually reveal whether the megakaryocytes are absent or in normal numbers, whether there are many young forms indicating a compensatory hyperplasia, or whether there are degenerative changes which characterize the toxic type of thrombocytopenic purpura.

In uncomplicated purpura, there is never enlargement of the spleen. Therefore, the absence of a palpable spleen does not rule out a splenic mechanism. Every case in our series has had a normal sized spleen at operation, which confirmed the clinical and x-ray lack of evidence of enlargement of the spleen. An adrenalin test is always made to see whether any hypersequestration of platelets can be demonstrated in the spleen.

When a transitory increase in the circulating platelets occurs it is quite reassuring. If it does not occur, that is not necessarily a contraindication to splenectomy, if the bone marrow shows an hyperplasia of qualitatively normal megakaryocytes; thus we use the adrenalin test as a confirmatory, not as a definitive test, in the final decision as to whether or not the surgical approach to the problem shall be attempted.

The snake venom test of Peck and Rosenthal is not used any longer in our clinic, though I think Dr. Rosenthal feels that it is of some value in determining which patients may be expected to do well after splenectomy. At times we have noted pretty violent reactions to the snake venom and we feel that it isn't essential to the diagnosis or prognosis at this time.

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*Read before the Omaha Mid-west Clinical Society, October, 1945.

Symptomatic thrombocytopenic purpura: In monocytic leukemia, less frequently in lymphocytic leukemia, and still less frequently in myeloid leukemia purpuric syndromes may occur, which are associated with a bone marrow invasion of leukemic cells. In pernicious anemia and multiple myeloma the cellular hyperplasia sometimes results in purpura, in acute lympholeucosarcoma, very commonly.

Cancer metastases to bone may produce a myelophthisic replacement of normal marrow, including the megakaryocytes. Aplastic or hypoplastic anemia early shows a deficiency in megakaryocytes and many of our patients with aplastic anemia have presented with a previous diagnosis of purpura simplex.

Toxemia is well recognized as a cause of purpura, either due to industrial chemicals or to medication. Therefore, in any individual who develops a purpuric syndrome, a careful history should be taken to determine the industrial contacts and any medication which the patient may have had. One thinks, of course, immediately of benzol, of x-ray exposure, of the arsenicals—neoarsphenamin, the sulfonamides, sedormid (now well recognized as a sensitizing drug for megakaryocytes specifically). Anaphylactoid allergic manifestations may be suspected in a person with a familial or personal past history of allergic diathesis.

Table I
TREATMENT OF ESSENTIAL THROMBOCYTOPENIC PURPURA

Period	Theory	Treatment	Reported	Results Personal Exp.
Prior to 1700	Pestilential fevers	Drugs, potions, incantations, etc.	Good	
1700-1800	Increased impetus of blood	Venesection	Good	
1800-1850	Constipation	Purgatives	Good	
1850-1875	Hemostasis	Iron Chloride	Good	
1873	Hemostasis	Blood transfusion	Good	Varies
1916	Splenic lysis of platelets	Splenectomy	Varied	Curative
1920-Revived 1936	Splenic lysis of platelets	Irradiation of spleen	Varied	No value
1932	?	Hypercalcemia	Good	No value
1934	Capillary permeability	Cevitamic acid	Varied	No value
1936	Capillary permeability	Moccasin venom	Sympt. Impr'm't	No value
1937	Food allergy	Elimination diets	Good	Undetermined

The treatment of essential thrombocytopenic purpura has undergone many changes from decade to decade, in the early years of course being related to speculation, but in more recent years, being based on objective findings and an understanding of the mechanisms involved. (See Table I).

In 1916 Kaznelson first advanced the theory that the spleen might destroy platelets and splenectomy was done at that time in a case of chronic thrombocytopenic purpura, with good results. From that time to 1925 the more chronic cases of purpura that were subjected to splenectomy were reported as successful. In every case, except one, of acute thrombocytopenic purpura, however, death followed surgery. The one exception was a patient, who, immediately prior to splenectomy, received a whole blood transfusion. We now know that transfusion of whole fresh blood is absolutely essential to supply the platelets necessary to hemostasis during surgery — and the one successful splenectomy, when analyzed, was undoubtedly due to a pre-operative transfusion given not to supply platelets but to supply the red cells that had been depleted by hemorrhage. It has now been established that a pre-operative fresh blood transfusion is essential to any successful surgical approach to an acute or chronic thrombocytopenic purpura, where the spleen is the mechanism.

In 1920 it was suggested that if the spleen was at fault, irradiation of this organ might serve as a satisfactory substitute for splenectomy. Reports from various clinics have been made with reference to this measure. In our hands, it has failed to bring about even a temporary remission in every instance of true essential thrombocytopenic purpura. (See Fig. 1).

It was suggested in 1932 that there might be a calcium deficiency, but the amount of calcium necessary for coagulation is so much smaller than the amount necessary to prevent tetany, that before there could be a deficit of ionizable calcium sufficient to produce a bleeding tendency there would be clinical tetany. There is no single case in the literature in which a deficiency of calcium

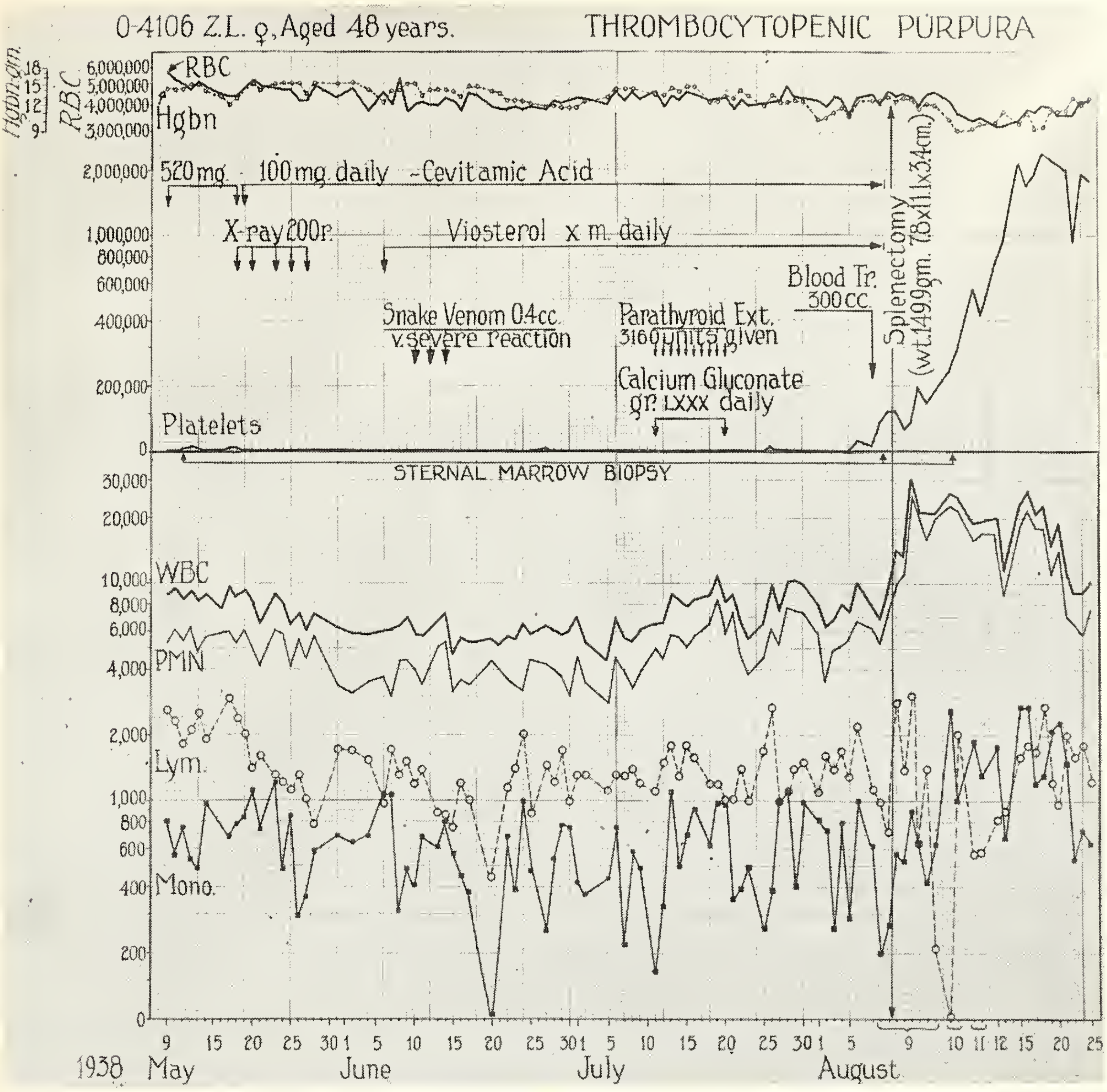

Fig. 1

has been proven to be the primary cause of purpura.

Ascorbic acid and its relation to capillary permeability is well recognized and may play a part in those cases where an ascorbic acid deficiency exists. Therefore, ascorbic acid always is determined in every patient with a bleeding tendency, and vitamin C in excess is always administered so that this will not be a contributing factor in a syndrome where purpura is the chief manifestation.

Moccasin venom in our hands has no beneficial effect as a therapeutic agent.

On the basis of food allergy, Madison and Squire have emphasized the effectiveness of elimination diets after the determination of offending food antigens; if such can be determined, of course the situation frequently may be corrected. The trouble in our experience has been that these unfortunate people usually are multiply sensitive to many things and it has been most difficult to establish either by skin tests or by elimination diets a regime which would effectively control the purpuric manifestations in a thrombocytopenic allergic diathesis. But it should always be considered, and tried.

If there are ecchymoses rather than petechiae—and most of them are limited to the lower part of the body—be very suspicious of an allergic diathesis. If there is a profound generalized thrombocytopenic purpura, there is less likelihood of its being an allergic vascular mechanism. The ecchymoses tend to occur in the lower extremities and around the waist-line, where there is increased venistasis plus a moderate increased capillary permeability.

Case 1. A 48-year-old woman for a number of years had had exacerbations and remissions of chronic purpuric skin and mucous membrane manifestations. She was placed on ascorbic acid at once, though her level was normal. 200 roentgen units of x-ray were given over the spleen for a total of 1,000 roentgen units without improvement in the platelet level. Snake venom—starting at 0.1 cc. going up to 0.4 cc. gave such severe reactions that it had to be stopped . (See Fig. 1). Viosterol was given, which was suggested a few years ago, as a stimulant to thrombocytopoiesis in the bone marrow though we have never seen it increase the availability of platelets under these circumstances. Parathyroid extract was thought to be of therapeutic value when two cases of tetany showing purpuric manifestations, were cured of their tetany and also of the purpuric manifestations with large doses of calcium gluconate and parathyroid extract; 80 grains a day produced no change in the clinical picture. Bone marrow studies revealed the marrow to be full of young megakaryocytes with no deficiency in quality or quantity.

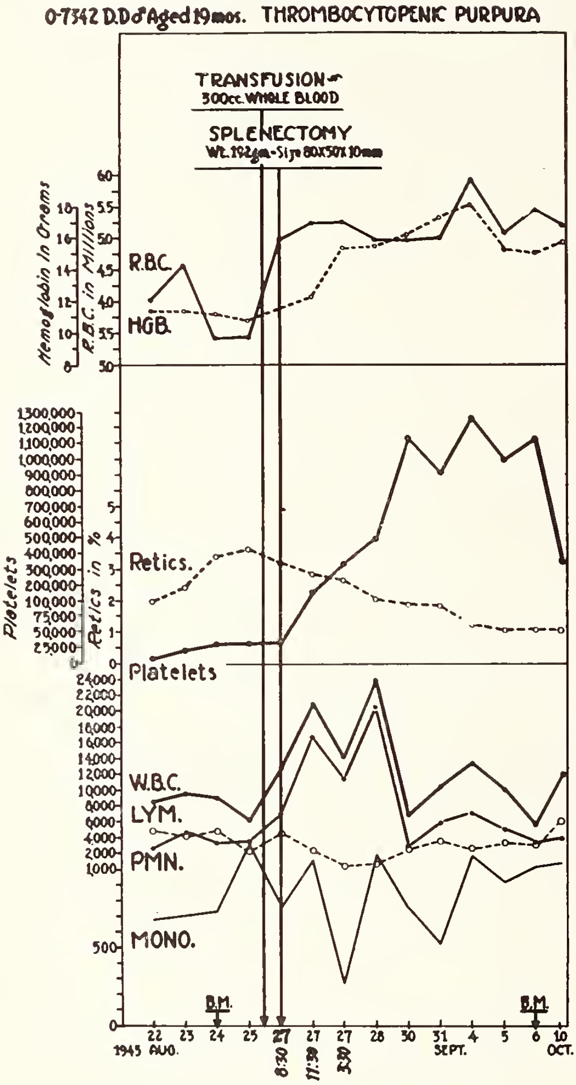

Fig. 2

Following a blood transfusion of 300 cc. on the day of operation, which raised the platelets to about 90,000 per cu. mm., a 149-gram spleen was removed. There was an immediate and sustained rise in the platelets, which has continued to the present time.

Case 2. A nineteen-month-old male infant, had been perfectly well until seventeen days prior to admission to the University Hospital, when ecchymoses, petechiae and epistaxes developed. He came in with an absence of platelets in the peripheral blood, reticulocytes 3.5% with the red cells two million, and a bone marrow hyperplastic for all normal elements, including megakaryocytes. Splenectomy was followed by an immediate rise in platelets, and the child has continued with a normal platelet count and with the disappearance of all petechiae and ecchymoses since that time. (See Fig. 2).

Case 3, is that of a young boy who came to our Clinic, eight years of age, with a typical thrombocytopenic purpura of two months' duration. Following a study in the hospital, including adrenalin test and bone marrow observations showing a hyperplasia of megakaryocytes, he was subjected to splenectomy. An 87-gram spleen was removed and a prompt rise to approximately a million platelets occurred. He was discharged from the hospital clinically free of symptoms and hematologically normal. On his way home, he developed a slight fever and the platelets were found to be low again. There was sore throat and a return of spontaneous ecchymoses. He was flown back within the next ten days and we found a typical case of infectious mononucleosis. He had generalized adenopathy; with a depression in his platelets, and as his fever subsided under symptomatic treatment, there was a return of the platelets to normal. Two years later during an episode of acute tonsillitis again a thrombocytopenic purpura recurred. He was given a transfusion, the tonsils were removed, and immediately there was a release of platelets. I have kept in touch with him since that time (1943), and he has had no further depres-

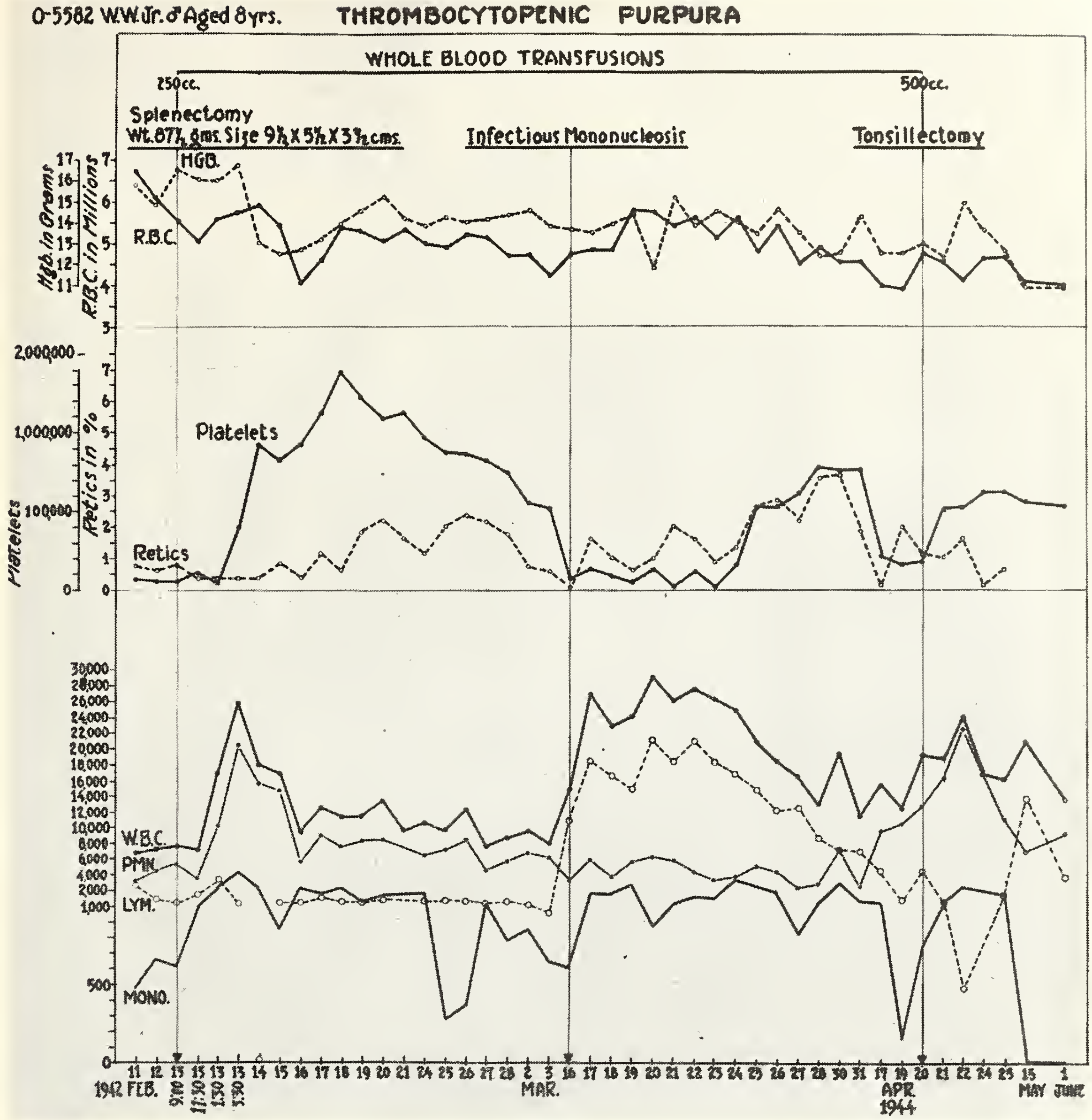

Fig. 3

sion in his platelets and no return of clinical manifestations. He is playing football and other games which expose to trauma, in which, prior to splenectomy, he was unable to participate. (See Fig. 3).

We have here an instance where the spleen per se in the first place, infectious mononucleosis in the second place, and tonsil infection in the third instance seem to have been associated with marked instability of the platelet level, but the last two and a half to three years, there have been no other episodes associated with precipitation of the purpuric manifestation.

Infectious mononucleosis may be associated with transitory thrombocytopenia. Therefore the differential diagnosis must be made in terms of generalized adenopathy and the hematologic picture of infectious mononucleosis.

The following are unusual cases with problems arising from complications due to thrombocytopenic purpura.

Case 4. A young woman twenty-one years of age, a primipara in the seventh month of pregnancy, developed a typical picture of thrombocytopenic purpura over a period of about three weeks. She was studied and the question of course came up as to whether it would be safe to remove her spleen.

There was no other mechanism found, and

finally, after three blood transfusions, her platelets remaining practically zero per cu. millimeter, she was subjected to splenectomy.

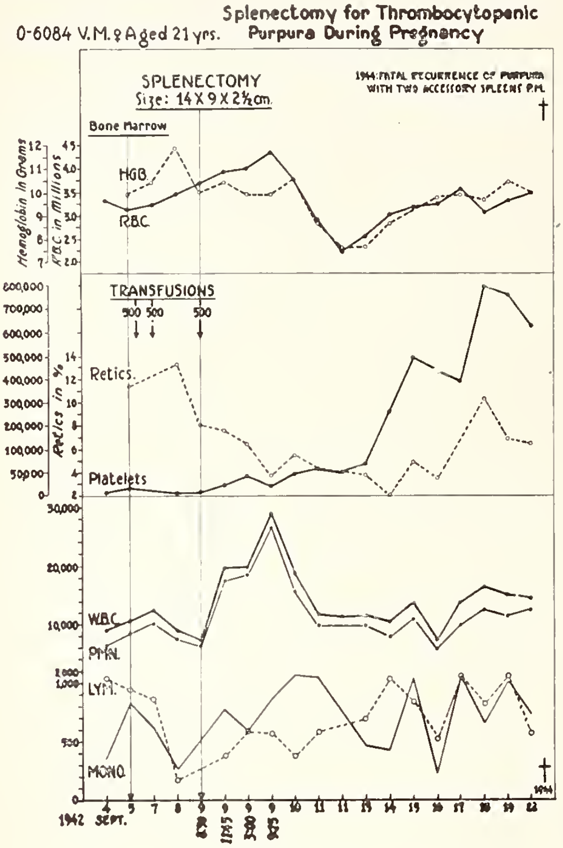

Fig. 4

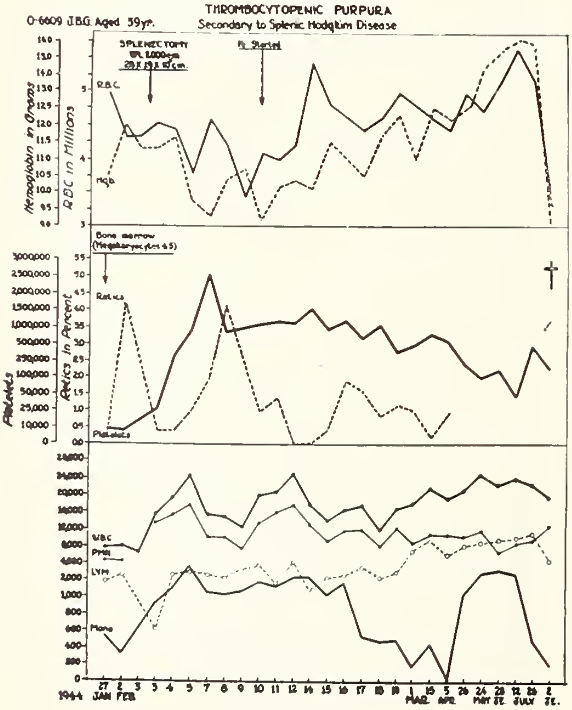

Fig. 5

Dr. George Curtis removed a 150-gram spleen, with a uterus typical of seven months' pregnancy with intrauterine movement being observable at the operating table. There was no change in uterine contractions, or in the viability of the foetus, and the platelets came up to 60,000 immediately postoperative; to 139,000 on the fifth day, and to 800,000 by the fourteenth day. On the twenty-first day she was discharged, and two months later was delivered of a normal, full-term foetus without any difficulty or complications.

In 1944, this patient again developed a generalized bleeding tendency,—a very acute syndrome; transfusions were given in a local hospital but she expired with an acute gastrointestinal hemorrhage. Postmortem examination revealed two to three quarts of blood in the stomach, with no ulcer demonstrated. Two accessory spleens were found. Obviously, with the pregnancy, the opportunity for exploration was at a minimum at the time surgery had been done two years before. The surgeon should always explore the

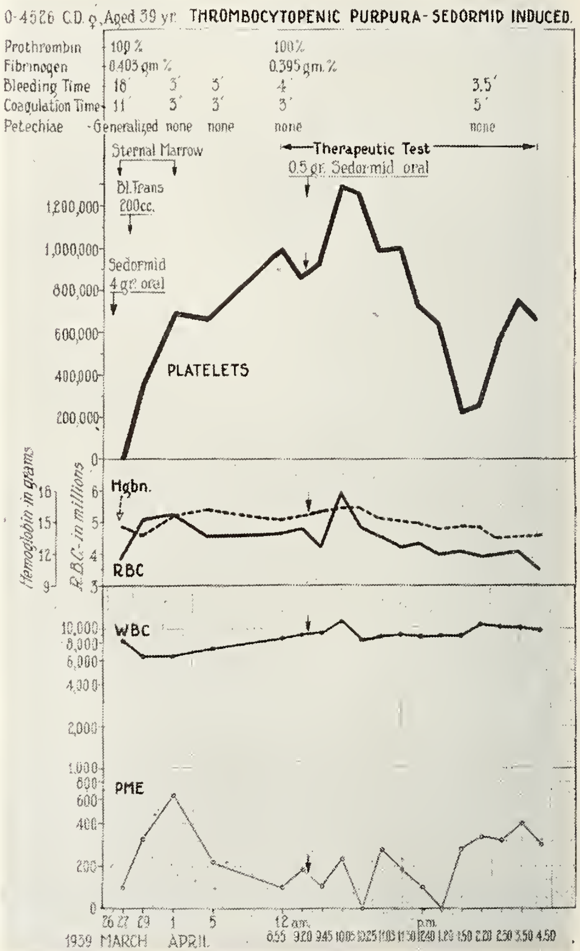

Fig. 6

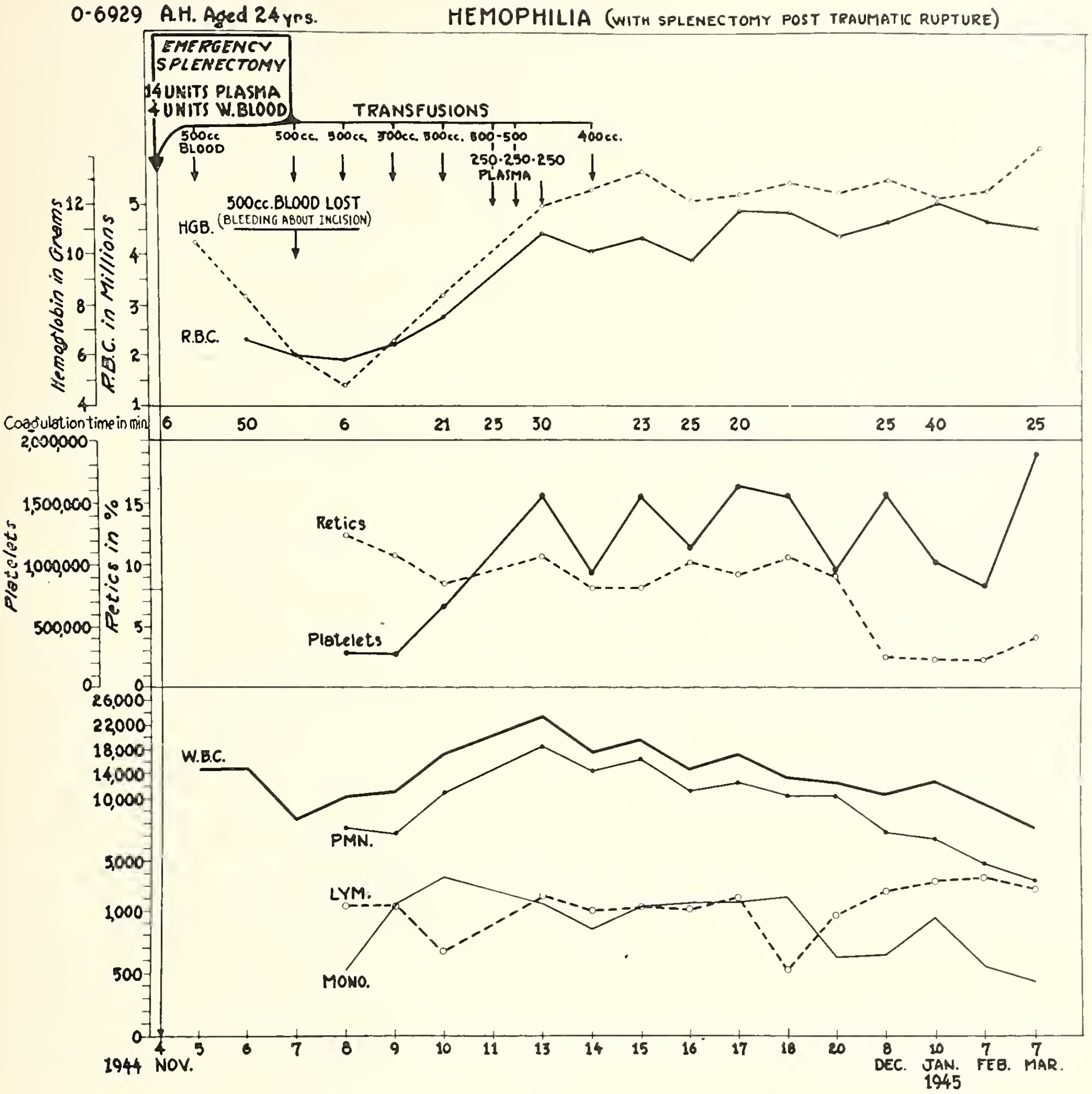

Fig. 7

abdomen for accessory spleens in any case of splenic dyscrasia. This instance of recurrent thrombocytopenic purpura in which two accessory spleens were found and histologically proved in section to be loaded with clasmatocytes filled with platelet debris, convinces us that the recurrence was on the same splenic basis as the original episode. (See Fig. 4).

Case 5. A thirty-nine-year-old male presented himself with all of the characteristics of primary splenic thrombocytopenic purpura. His peripheral blood, adrenalin test, his bone marrow examination, all indicated an uncomplicated thrombocytopenic purpura. Surgery was recommended and a 2,000-gram spleen was removed. The patient weighed over 300 pounds. Due to the obesity and the position of the spleen, we had been unable to feel it or percuss it pre-operatively. (See Fig. 5).

On histological examination the spleen proved to be enlarged due to Hodgkin's disease. There were no lymph nodes peripherally, and no mesenteric nodes at the time of operation. The Hodgkin's syndrome progressed and one year later terminated fatally, but with no hemorrhagic diathesis.

Now let us consider for a moment the purpuras of the so-called allergic or anaphylactoid type. The etiology is uncertain. The prognosis on the whole is good in this group. Treatment is symptomatic, but the attempt to find the specific antigen should always be made.

Case 6. A nurse awakened one morning with purpuric manifestations, petechiae and ecchymoses over the body. Her history revealed that she had been taking sedormid at the menstrual periods. Her prothrombin was 100%, her bone marrow showed markedly damaged megakaryocytes. An emergency blood transfusion was given and the platelets in the next two or three days returned to normal. We wanted to prove that sedormid was the agent, so 0.5 grain of sedormid was administered orally some six weeks later. During the first two hours of the test the platelets rose to 1,300,000 from 900,000, but by 4 o'clock in the afternoon the patient had developed all of her previous subjective symptoms and a few spontaneous ecchymoses, reflecting a sharp drop in the platelets; but by 6 o'clock the platelets had come back to normal and she was feeling well again. You should be warned, however, that this is a dangerous confirmatory test, and may lead to prolonged dangerous thrombocytopenia in some instances. (See Fig. 6).

We have in these cases bone marrow evidence histologically of a toxic etiology, which when found, constitutes a major contraindication to surgery.

The hemophiliac patient presents an entirely different problem. The prolonged coagulation time is particularly dangerous in trauma. Whole fresh blood or frozen plasma, however, will furnish the essential globulins to reduce and maintain the coagulation time at normal levels, during convalescence.

Fig. 7 shows the remarkable recovery from traumatic rupture of the spleen of an hemophiliac patient, who was given several times his original blood volume in whole blood and plasma during and after emergency surgery.

CONCLUSIONS

The purpuric syndrome may be acute or chronic, thrombocytopenic or non-thrombocytopenic. The mechanism in each instance may be promptly determined by appropriate laboratory procedures. Treatment is specific, when the precise mechanism is determined. Such states are always serious and potentially fatal, and demand immediate and complete cooperation between hematologist and surgeon, if disaster is to be avoided.

* * *

PUBLICIZE REPORT ABSOLVING DOCTORS ON RETIRING BOARD, JOURNAL ASKS

The investigations of a committee appointed by the War Department, which were instigated by criticisms made against the machinery of the retirement of army officers, "should be made public so that even the shadow of suspicion may be removed from the medical members of the Disposition and Retiring boards," according to an editorial in the February 8 issue of The Journal of the American Medical Association.

The editorial follows in full:

Last year both the Reserve Officers Association and the National Guard Association criticized the machinery of retirement of army officers, claiming discrimination against the civilians who had served with the Army. Resolutions were passed by both organizations charging unfairness and favoritism; indeed, charges were made that laws and regulations were being purposely misinterpreted.

Retirement procedure in the Army is largely a medical function. The officer to be retired is first given a physical survey in a hospital; he then appears before a disposition board, all the members except the recorder being physicians. Finally he appears before a retiring board, with at least two medical members. Medical witnesses familiar with the case are called to testify, and the board proceedings are reviewed by physicians in th War Department. Because of this method of procedure, the censure of the resolutions passed by the two associations would seem to fall on medical shoulders even if it was not so intended.

The complaints were so serious that the War Department appointed a committee to make a careful investigation. The committee was composed of officers from all components and represented various branches of the service. The results of the investigation have never been made public. It is understood, however, that the committee devoted much time to its work and made a thorough and complete investigation. The findings of the committee did not substantiate the charges made by the two organizations. The committee found, however, that medical officers, the vast majority of whom were from civilian life, were conscientious in their work and that their findings were in accord with the laws and regulations governing retirement. Errors may have been made in individual cases, but these were few and were largely matters of professional judgment and opinion.

The committee report should be made public so that even the shadow of suspicion may be removed from the medical members of the Disposition and Retiring boards. The splendid body of men who volunteered their services in the war effort certainly did not indulge in double dealing or chicanery.

Histoplasmosis Case Report

FRANK M. CONLIN, M.D.
CHARLES R. HANKINS, M.D.
From the Department of Medicine, University of Nebraska
College of Medicine

The purpose of this paper is to report, so far as we know, the first case of histoplasmosis in the State of Nebraska, and to briefly discuss this protean disease in its major aspects. Clinical reports show that this disease is being recognized with increased frequency, and that its geographic distribution is within the territory adjacent to Nebraska. With the possibility of this disease being kept in mind and a definite search for it being made, it may be found that this condition has a significant incidence.

Mrs. G. Y., a 57-year-old housewife, was first seen by one of us (F.M.C.), August 23, 1944. Her complaint was pain in the fingers, the shoulders, and the right chest. The pain in the chest was sharp in character and suggestive of pleurisy, being present in the axilla, radiating around to the front of the chest and slightly into the upper arm. The pain in the joints and shoulders was of a dull aching character. The previous history was essentially negative except for an early menopause at age 39, and frequent attacks of mild cystitis accompanied by dysuria and passage of small amounts of blood at times. The physical examination was negative except for the demonstration of a urethral caruncle. No foci of infection were demonstrable. Clinically, she impressed one as having a mild hypothyroidism. A diagnosis of post menopausal arthritis was made, and the patient was given paliative therapy only.

She was again seen on January 3, 1945, at which time she was still complaining of mild joint symptoms. Again nothing significant was found. Urinalysis showed a faint trace of albumin. The erythrocyte count was 4,300,000 and the leukocytes numbered 4,200. Free hydrochloric acid was demonstrated in the gastric specimen. The blood serum calcium was 11.25 mgm%, and the blood phosphorus was 4.03 mgm%. She had been taking Vitamin D in the form of Ertron for a few months preceding this visit. She was given diathermy and massage, salicylates, and small doses of thyroid.

In March, 1945, she went to Phoenix for two weeks. While there she began having fever, and with this her joint symptoms disappeared. She developed a gastro-intestinal upset with an irregular diarrhea. She returned to her home, and was hospitalized for study. The only positive finding at this time was a small adenoidal abscess which drained about 1cc of pus on incision. A mixed culture of streptococcus and staphylococcus was reported. At this time the hemoglobin was 65%, RBC 3,970,000 and the WBC 4300 with a normal differential count. The sedimentation rate was 30 mm/hr. During this hospital stay the temperature ranged daily from 99 to 100 F. She was dismissed after three days in the hospital.

Upon returning home, she continued to run fever, and this gradually rose until she would have an afternoon temperature of 102. Her final admission to the hospital was on April 25, 1945. Laboratory studies at this time revealed RBC 3,840,000, Hgb 68%, WBC 3600 (segs 63, staff 13, lymph 19, mono 5). Her course was characterized by a high spiking temperature each day, never reaching normal at any time but remitting each day. Her pulse rate was within normal range and her respirations never exceeded 32. The chest findings were variable, suggesting a bronchitis at times, and at other times seemingly presenting findings of scattered areas of consolidation that would disappear within 24 hours. A tentative diagnosis of virus pneumonia was made although repeated chest films failed to show any parenchymal involvement. There was no cough or sputum, so cultural studies were not made. The diarrhea was replaced by an obstinate constipation and some distention. Agglutination tests were all negative. Marked weakness and anorexia developed, and tube feeding was necessary. She developed a generalized edema, more marked about the neck to give the appearance of well-being until examined closely. Blood transfusions were given freely. Terminally a soft systolic murmur developed suggesting a bacterial endocarditis, but repeated blood cultures were negative. About the third week she developed a low muttering delirium, and sleeplessness, and marked disorientation which continued to the time of her death. In the later stages, five ulcerated areas developed on the back that were thought to be beginning decubitus ulcers. These had a dark base, slightly elevated edges, and were about the size of a bean. Sedimentation rates remained elevated throughout the course. The leukocyte count remained low, but the differential pattern was normal. The urine examinations were consistently negative until terminally albuminuria was present and then anuria. A spinal fluid examination was essentially normal several days before death. A consultant (neurologist) diagnosed the central nervous system disturbance as a toxic delirium. Death occurred on May 31, 1945.

A post mortem examination was done and the pertinent findings are as follows:

The diaphragm was elevated on the right side and the right pleural space was completely obliterated by adhesions around the lower and middle lobes. The consistency of the lung was increased and the crepitations could not be felt. Through the pleura areas of grayish purulent material could be seen. On gross section through the upper lobe numerous areas in which there was grayish discoloration of the lung tissue were seen. From these areas purulent material could be expressed. This purulent material was rather thick and viscid and did not flow freely. These areas of abscess formation were numerous and gave the greater part of the upper lobe over an area of approximately 8x10x12 cm a honey-combed appearance. In between the areas of frankly purulent material there was consolidation of the lung tissue. In this lobe no area of distinct tubercle formation could be found but the color was somewhat yellowish gray and was suggestive of tuberculosis. The bronchi to the right upper lobe were carefully investigated, but no new growth was found, and the bronchi were not increased in size. They could be followed out and many of them ended in abscess spaces. The middle lobe was quite markedly atelectatic and but few crepitations could be felt. No abscess or frank areas of consolidation were found. The lower lobe was similar to the middle lobe, being markedly atelectatic.

The spleen was about twice the normal size and weighed 275 grams. The color was grayish purple. The lobulations were normal and there was no perisplenitis.

The brain was found to be entirely normal.

The gastro-intestinal tract was normal throughout.

Microscopic examination of the tissues revealed:

Section of the right upper lobe showed the alveolar spaces to be filled with edema fluid and polymorphonuclear leukocytes. In many areas the alveolar walls are destroyed and abscesses are present. The abscess cavities contain many polymorphonuclear leukocytes and mononuclear cells. Colonies of microorganisms are present. The organisms are large and can be seen with a dry magnification of 430 times. Some of the organisms are located within the cytoplasm of the mononuclear leukocytes. Around some of the organisms there appears a halo. These microorganisms have the morphology of Histoplasma capsulatum. The organisms were not cultured.

Sections of the brain were normal.

Sections of the spleen showed only passive congestion.

Sections of the thyroid showed marked fibrosis tissue replacement.

DISCUSSION

Darling, in 1906(1), reported a case of a Negro patient who had an irregular pyrexia and leukopenia resembling Kala Azar. Blood smears taken at autopsy and sections of various organs showed a coccus-like organism that packed the cells of the reticuloendothelial system. He felt the organism must be a protozoan form and called it Histoplasma capsulatum, and the disease histoplasmosis or reticulo-endothelial histoplasmosis. The next reported cases were those of Riley and Watson in 1926(2).

Demonbreum(3) in 1934, was the first to demonstrate that the organism is really a fungus. It was demonstrated to be a yeast-like organism in the body, appearing intracellularly in cells of the reticulo-endothelial system. These yeast bodies average 3 to 5 microns in diameter. When grown in culture at room temperature the yeast-like form reverted to a mycelial form. Hansmann and Schenken(4) had been able to cultivate this organism several months previous to Demonbreum but classified it as in the genus Sepedonium. Their case was the tenth reported in the literature.

Parsons and Zarafonetis of Ann Arbor, Michigan(5) report a series of ten cases of histoplasmosis and give an excellent review of this subject. They have made an exhaustive review of the cases reported to that time, the list including seventy-one reports. For detailed review of the subject clinically and pathologically this article is recommended for study.

The etiological agent is clearly defined but the mode of transmission has not been determined. Much evidence points to the fact that the initial point of entrance is through the respiratory tract as brought out by the work of Palmer(6). The ear has been pointed out as a point of entry, one case following a fungus infection of the canal, and another one following a case of otitis media. On the other hand several reported cases in the literature were associated with an ulcerative colitis with symptoms of diarrhea predominating.

The majority of the cases reported have occurred in the areas drained by the Mississippi River and its main tributaries, with but few exceptions. Missouri has had a high incidence in the recorded cases which gives the consideration of the disease more interest to Nebraska practitioners.

A brief review of the pathology will explain the rather widespread and diversified findings that develop in this disease. As stated previously, the organism is parasitized by the large macrophages or the cells of the reticulo-endothelial system. Since these cells are almost universally distributed in the body, the infection of almost any organ of the body is possible. The macrophages involved may be found singly in tissues or they may form granulomatous lesions resembling miliary tubercles. The centers of these lesions may undergo caseation necrosis(5). In the liver the Kupfer cells may be so involved that they undergo hypertrophy and hyperplasia. When a lesion is produced on a surface, an ulcer forms. Parsons(5) found that organs are involved in the following order in respect to frequency: spleen, liver, visceral lymph nodes, lungs, bone marrow, oral mucosa, adrenals, gastrointestinal tract, peripheral lymph nodes, kidney, and larynx.

Reasoning from the pathology involved in this disease, one can understand the wide variety of presenting symptoms and signs. Because of this there is no definite diagnostic syndrome that can be established. Fever is almost invariably present and usually runs from 100 to 102 degrees but may go very high. Hypochromic anemia is almost invariably present. Leukopenia is present in the majority of patients, but the count may be normal, and on several occasions a leukemia has been found associated with the disease. Enlargement of the liver, spleen, and lymph nodes is common. Several cases have been reported with death in a rather typical Addison's Crisis, autopsy showing rather marked involvement of the Adrenal glands.

Diagnosis of this disease antemortem has been most successful through examination of biopsy material, microscopically and culturally. Occasionally, examination of the blood will show a few macrophages with the yeast cell inclusions. Several cases have been diagnosed by bone marrow studies, but this has not been successful in the majority of cases. It must be mentioned that this organism when cultured from blood or biopsy material is very slow in growth, and that the culture should not be considered as negative until after a lapse of at least three weeks.

Treatment is not definitely established as yet, however, one case of cure is reported. Parsons(5) describes a case which had been mistakenly diagnosed as leishmaniasis and was treated with neostam, an antimony preparation. Meanwhile, the biopsy material was reexamined and a diagnosis of histoplasmosis was made. This man made a clinical recovery. Parsons has treated two cases with antimony preparation; one is still living, and the other died, supposedly of adrenal insufficiency. The latter case was definitely diagnosed before the start of treatment, but at the time of death, none of the fungi or yeast forms could be found, although small clear areas of the size and shape of the capsule of Histoplasma capsulatum were found in the tissues. But for these two cases, all known cases of clinical histoplasmosis have died. To date, the antimony compounds would seem to be the method of choice in treatment.

Palmer(6), of the United States Public Health Service, has had a wide experience in the use of histoplasmin. This substance is a filtrate of the liquid media in which Histoplasma capsulatum has been grown. This material is given intradermally, and reaction similar to that of tuberculin is given. To date, proof that sensitivity to histoplasmin is directly related to a previous histoplasmosis has not been established. However, by inference, and by example in the case of tuberculin, coccidioidin, and other intradermal skin tests, it is believed that a positive test with this substance indicates previous contact with this fungus. Palmer became interested in the high incidence of pulmonary calcification in the presence of negative tuberculin tests. It has been shown that coccidioidil mycosis is capable of producing pulmonary calcifications. However, many people having these calcifications have negative coccidioidin and tuberculin tests. 3,105 nurses were studied in various cities in the country, each having a chest x-ray, a tuberculin test, and a histoplasmin test. Of this group of nurses, 294 were found to have pulmonary calcifications. 68, or 21.4%, of this group had positive tuberculin tests, while 231, or 78.6%, were tuberculin negative. Of this latter group of 231, 198 had positive histoplasmin reactions and eight more had doubtful reactions. Another breakdown of his figures shows that of the 3,105 cases studied, only 10.4% of those having a positive tuberculin test had pulmonary calcifications. whereas 31.1% of those having positive histoplasmin reactions only showed pulmonary calcifications. Of those having both tuberculin and histoplasmin positive tests, the total of pulmonary calcifications found was 34.1%. Among the group negative to tuberculin and histoplasmin, a rate of pulmonary calcification of 1.2% was found. Again, of the cases studied, the highest incidence of positive reactions were found in the nurses from Missouri and Kansas, a fact that should make us more cognizant of this disease. Palmer concludes that in those states in which the frequency of reaction to histoplasmin is high the incidence of pulmonary calcifications is high, and that in these areas a high proportion of the pulmonary calcification observed in tuberculin negative people is probably due to histoplasmosis. Histoplasma capsulatum (or an immunologically related organism) is widely prevalent in certain states.

With this suggestion of rather high incidence of this disease process in a subclinical form in adjacent states, and with the highest incidence of reported cases in these adjacent states, the possibility of this disease has to be kept in mind. Migratory population trends between Nebraska and these other states will bring cases into Nebraska, disregarding the fact that this condition may be endemic in Nebraska in a subclinical form.

(Bibliography in Reprints)

Local Anesthesia in Caesarean Section*

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A report on 37 caesarean operations under local anesthesia was presented at the Omaha Mid-West Clinical Society meeting in 1943(1). Since then 67 additional caesarean operations using local anesthesia have been performed, bringing the total number of operations to 104.

The present study was undertaken to evaluate the end results, first in regard to ease of technique of administration of the anesthetic agent, and second as to the effect on the mother, her post operative discomfort and morbidity and finally as to the effect on the baby.

TECHNIC OF ADMINISTRATION

If possible, gr. III nembutal is given two hours before the operation, scopalamine gr. 1/150 one hour before operation, and morphine sulfate gr. 1/6 at the time the local infiltration is begun. The bladder is emptied per catheter.

The drug used was one per cent novocaine with three drops of 1-1000 adrenalin hydrochloride added to each ounce of novocaine. The amount used varied from 40 to 110 cc., the average being approximately 90 cc.

The success of the local anesthesia depends upon careful technique—the injection being done as follows:

1. A series of contiguous intra-dermal wheels the entire length of the proposed incision.
2. Radial blocking of the tissues between the skin and anterior rectus sheath, the injection carried to the edge of the rectus muscle.
3. Radial blocking of the tissues between the anterior and posterior rectus sheaths. At the lower angle of the wound, if it is mid-line, anesthesia is frequently incomplete, unless great care is exercised in placing a sufficient amount of novocaine into the pyramidalis muscle and in the region of the underlying transversalis fascia.
4. Injection of the peritoneum of the anterior wall, if the previous radial blocking has not given complete anesthesia.
5. If a classical section is to be done, the uterus does not need to be anesthetized.

If a low cervical section is to be done 10 cc. of solution is injected beneath the bladder peritoneum about 1 cm. above the bladder, 5 cc. being placed on each side of the mid-line in such a way that the length of the proposed peritoneal incision is anesthetized. This also facilitates the dissection of the bladder flap. Pressure on the wheels produced will disperse the fluid over a larger area.

6. When using retractors, or sponges, gentleness is imperative or pain may be easily produced in unaffected areas, and pressure creates discomfort.
7. Pituitrin 1 cc. is given intramuscularly as the uterus is incised and ergotrate gr. 1/320 as soon as the baby is delivered. The uterus contracts promptly with quick separation of the placenta and a moderate amount of bleeding. Local anesthesia does not interfere with contractions of the uterus.

Supplemental anesthesia was employed in eight cases. In one case the placenta could not be separated as it was a placenta accreta. Nitrous oxide anesthesia was used for the hysterectomy. In another case the patient was very uncooperative, greatly apprehensive and it was necessary to use cyclopropane for the delivery of the baby and closure of the incisions. In six instances local infiltration was supplemented, at the time of delivery of baby from the uterus, with sodium pentothal 2½% intravenously. This was done as an experimental procedure. This method has two distinct advantages. The patients experience less pain at the time of the extraction of the baby, and closure of the wound is more rapid. These advantages however are cancelled by the added personal requirement. Another individual who can place the needle in the vein, administer the anesthetic, and watch the patient, must be added to the operative team.

TIME OF OPERATION

The operative time from the time of beginning of injection of novocaine to complete skin closure was studied. The shortest time was 32 minutes, the longest 77 minutes. Only 12 cases required 60 minutes or more. The average time elapsed was 50 minutes plus.

POST OPERATIVE DISCOMFORT

Post operative discomfort was much less than during inhalation anesthesia. The patient has little or no nausea or vomiting and may take fluids or soft food on return from surgery if she wishes. Five patients developed moderate distension 48 hours post operatively and three of these because of vomiting, required the use of a Wangensteen suction apparatus for two days. Thirty patients had slight post operative distension and three of these had slight nausea and vomiting during the second 24 hours post operative. Only six patients required 6 injections of morphine sulfate or its equivalent post operatively, fourteen required 5 injections, thirty-two required 4, thirty required 3, twelve required 2 and four patients got along on one post operative hypo of morphine. Three patients required no post operative injection of morphine or its equivalent.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

POST OPERATIVE MORBIDITY

WOUNDS:

One wound was frankly infected—this occurred in a case of disproportion with premature ruptured membranes and prolapsed cord. The wound was undoubtedly contaminated by the cord as it was pulled from the vagina through the uterus and abdomen at the time of delivery. Three wounds had small stitch abscesses and one had a serosanguineous drainage. The remaining 99 wounds healed by primary intention.

OTHER CAUSES OF MORBIDITY

Four patients had moderate upper respiratory infections, two developing on the second post operative day and two on the sixth post operative day. These were all transient in character and did not keep the patient hospitalized longer. Three patients developed post partum pyelitis. There were no maternal deaths.

TYPE OF OPERATION

The low cervical caesarean section was done in 71 cases, a combined low cervical and Porro performed on two cases, and the classical caesarean was performed on the remaining 31 cases.

A study of the paraty of the patient and the type of operation performed in each instance is shown in Table No. 1.

Table No. 1

Paraty	No. Cases	Type of Operation	No. Cases
Primipara	35	(Low Cervical	31
		(Classical	3
		(Low Cervical - Porro	1
Secundipara	43	(Low Cervical	29
		(Low Cervical - Porro	1
		(Classical	13
Tertipara	16	(Low Cervical	7
		(Classical	9
Quadrapara	7	(Low Cervical	3
		(Classical	4
Quintapara	3	(Low Cervical	1
		(Classical	2
	104		104

INDICATION FOR OPERATION

The indications for operation are shown in Table No. 2.

Table No. 2

Sterilization	3
Cephalo Pelvic Disproportion	41
Previous Section	32
Premature Separation of Placenta	5
Placenta Praevia	9
Chin Posterior	9
Fibroid obstructing Birth Canal	1
Cervix Dystocia	1
Cardiac with Decompensation	1
Sep. Pubis (fractured during previous labor)	1
Transverse Presentation	1
Elderly Primipara	2
Previous Difficult Labor (Cervical Dystocia)	1
Previous Myomectomy	3
Toxemia (Severe Pre-eclampsia)	1

DURATION OF LABOR

Nineteen of the patients had been in labor prior to the performance of the operation, one for 2 hours, one for 3 hours, one for 5 hours, seven from 8 to 10 hours, six from 10 to 20 hours, one for 30 hours, one for 48 hours and one for 3 hours with prolapsed cord.

Eight of the patients had premature rupture of the membranes but without the onset of labor pains.

MATURITY

In eight instances the duration of pregnancy was between 30-35 weeks. The remaining 96 cases were between 36 and 40 weeks.

FOETAL MORTALITY AND MORBIDITY

One hundred five children have been delivered, there being one set of twins. Onset of respiration was difficult in only one instance and in that case the baby had an atresia of the esophagus from which it died on the seventh day. Six babies were slow in the onset of respiration. In one, the mother had been in labor 18 hours prior to section with nembutal sedation before surgery. In another, labor had been established for three hours and the mother had a severe preeclampsia. In the remaining four no demonstrable cause could be found.

Eight babies were lost. The cause of the foetal mortality in each case follows.

Case No. 1. Maternal premature separation of the placenta, 30 weeks gestation. Infant lived five hours. Post mortem—prematurity.

Case No. 2. Fibroid obstructing pelvic canal, 34 weeks gestation. Macerated fetus.

Case No. 3. Maternal placenta praevia, gestation

34 weeks. Baby cried spontaneously but died in 4½ hours. Post mortem—Fetal Atelecstasis.

Case No. 4. Elective caesarean at 38 weeks gestation. Previous section. Baby stillborn. Post mortem—Erythroblastosis fetalis.

Case No. 5. Contracted pelvis, previous section. Term. Pains suggestive of rupture of uterus. Stillborn, hydrocephalic chondrodysplasic. Macerated fetus.

Case No. 6. Contracted pelvis, elective section at term. Baby died suddenly five hours after delivery. Post mortem—Massive bilateral adrenal hemorrhage.

Case No. 7. Maternal placenta praevia, light labor 12 hours, 39 weeks gestation. Cried spontaneously, died in 5 hours. Post mortem—Pulmonary atelecstasis.

Case No. 8. Maternal placenta praevia, gestation 30 weeks. Baby cried spontaneously, but died in 24 hours. Post mortem—Pulmonary atelecstasis.

The uncorrected fetal mortality rate is 7.61%. If we eliminate cases 2 and 5, then the corrected mortality rate is 5.82%, and none can be directly ascribed to the anesthesia.

In further study of the fetal mortality it is seen that in four instances the duration of the pregnancy was under 36 weeks. This constituted 50% of the uncorrected fetal mortality. As there were only eight instances in which gestation was 36 weeks or under, the four fetal fatalities represent 50% of this group.

There were 14 instances of placenta praevia and premature separation of the placenta. Four of these babies were lost, all premature. For the group there was a fetal mortality of 28.53%. Placenta praevia or premature separation developing under 36 weeks of gestation presents a very definite hazard for the baby.

SUMMARY

The technic of local anesthesia in caesarean section is simple in administration but requires patience on the part of the operator and gentle handling of the tissues. Its employment decreases the personal requirements for the successful performance of the operation. It does not create any anoxemia in the baby and respiration is spontaneous provided the respiratory center has not been affected by depressing drugs.

Prematurity under 36 weeks of gestation when associated with placenta praevia or premature separation of the placenta presents a very definite hazard to the survival of the baby. It is our impression that the use of local anesthesia decreases the risk.

The patients have very little post operative discomfort and are able to take fluids and food on return from surgery.

The time required for the operation in the average case is less than fifty minutes.

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SELF VICTIMIZATION

A familiar complaint of the so-called nervous person is that at times, for no apparent reason, his nervous symptoms become acutely aggravated. "I haven't been under any strain," he will puzzle during such periods, "and yet I am completely disorganized."

The habit of searching the environment for some obvious explanation of the phenomenon indicates how little the problem of nervous tension is understood. Tension arises from three principal sources. Environmental stress is one source, to be sure, but in the case of the adult it is in itself less often to blame for tension symptoms than is popularly supposed. Another source is early conditioning; that is, parental influence and various early experiences may have conditioned the individual to react with anxiety and tension to certain life situations. Lastly, nervous tension arises out of faulty, intolerant attitudes and self centered goals, which are to a great extent the product of conditioning but into which many other factors enter.

Most of today's "nervousness" stems from the third source. The individual who is puzzled by his nervous symptoms is usually the victim of his own resentment, hostility, envy, jealousy, and similar disorganizing emotions. It is difficult for such a person to recognize that he generates his own tension, because part of his "sickness" is an unwillingness to see himself in his true colors.

He protects his self esteem at the price of his peace of mind, for until he recognizes his shortcomings and adopts a more tolerant and less self-concerned approach to life, he will never be free of nervous tension no matter how carefuly he ministers to his own well being or how skillfully he manipulates his environment.—James Sonnett Greene, M.D.,, from TALK.

Psychiatric Aspects of Pain in the Neck*

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While the title of this paper is "Psychiatric Aspects of Pain in the Neck," an attempt will be made to approach this topic with a formulation based upon common knowledge of human nature and commonsense. In the course of medical education, we have a tendency to put aside knowledge that we have always had, and to replace it with special facts and information which are new to us. To most medical men, the topic, pain in the neck, is more acceptable if discussed in terms of bones, muscles, ligaments and nerves. It allows the physician some special satisfaction if he is able to be preoccupied with a cervical intervertebral disc, a cord tumor, arthritis, cervical rib and their particular syndromes. There is a certain security in discussing discreet definitive disorders, and this is a satisfaction which does not always attend the discussion of a topic from a broader general standpoint of facts that are recognized by most everybody, medical and non-medical.

Everybody agrees that pain is essentially a disagreeable sensation; and medically, we recognize it as a symptom of disturbance in normal functioning of a part of the body. It is a word which covers a variety of sensations, is freely used as a symbol of distress, and understood in terms other than medical.

When we consider the full topic of "Pain in the Neck", we associate it with the epithetic use in which it symbolizes a disagreeable, irritating or antagonistic situation or individual. In other words, there are more "pains in the neck" than diseases of the neck, if we are going to be guided by the common usage of the term. In fact, the neck is one part of the anatomy that is utilized rather frequently in our symbolic use of language, and we refer to people as being "stiff-necked" to symbolize their rigidity or arrogance; and we use the term "to stick one's neck out" to represent the disregard of security; and one of the protective measures of the body is to hunch one's shoulders and pull in one's neck.

To continue this borrowing from common knowledge and human experience, what, then, are generally recognized causes of "pain in the neck"? The frequent complaint of pain in the neck has provided a happy hunting-ground for the chiropractor, and if we believe him and some of the patients who consult us, we would have to formulate its chief cause as being due to a disturbance in vertebral alignment and a pressure upon some nerve. At the present time in medical circles, there is a new enthusiasm for cervical intervertebral discs, which has detracted from one of the old favorites, cervical arthritis. It is very probable that most lay people and physicians recognize the commonest type of distress in the neck to be related to nervous tension. Perhaps the most common somatic complaint, or body protest, associated with emotional tension, is a tight, drawing, disagreeable and sometimes very distressing sensation in the back of the neck. That this is no "imagination" can now be attested by the fact that electromyographic studies show changes in muscle tension in such cases of neck distress.

From where, then, comes this muscle tension that is so commonly a cause of distress in the neck? First of all, it might be described as being tied up with emotional tension, and the dynamics or dynamic formula may be expressed somewhat as follows: In the first place, there is emotional conflict between opposing feelings, which gives rise to frustration; this, in turn, initiates hypothalamic stimulation with further discharge to the cortex, sensory-motor and autonomic nervous system. This, in turn, gives rise to increased muscle tension, which is symbolized by distress; and if the above condition becomes more or less static and chronic in duration, it is likely that there results some organic change in the tissues.

How, then, could the above dynamic formula, in which one unfortunately has to lapse into medical parlance, be illustrated? A rather typical case report might well serve:

A.S., a 38-year-old business man, who as a child experienced a great deal of sibling rivalry toward an older brother, developed strong competitive feelings and set for himself high goals in business which he was not able to obtain. This resulted in considerable frustration. He was a passive chap who found it difficult to utilize his feelings of aggression and who sought success by more or less asking that it be given to him. In this situation of frustration, he developed considerable tension, including muscle tension, which expressed itself in the form of a pain in the neck. This pain in the neck served as a useful conversion phenomenon, or perhaps better expressed as a focus of excuse, to which he could attribute his lack of success and inability to achieve his unreasonably high goals. His behavior was like that of so many patients in this category. He went from local physicians to chiropractors to specialists. Most of them supported him in his feeling that it was his neck that needed correction rather than his emotional feelings and the disturbed personality factors.

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*Read before the Omaha Mid-West Clinical Society, October, 1946. Part of a symposium, "Pain in the Neck and Shoulder."

There is nothing unusual or atypical about this man's life history. It is a common way of human living, and in his personal and emotional difficulties this man has chosen a neurotic solution in which he calls forth for support from the field of medicine. The problem and treatment resolve around whether these people can be cared for by treating their neck or by treating the person as a whole. If he is given local treatment to the neck, it only serves to strengthen his belief that his inadequacies in life adjustment are due to his neck rather than to some failure in personality adaptation. If he is given a neck brace or told to cut down on his work, then this only serves to further gratify his dependent needs. In other words, he can then be cared for, and it is all right for his wife to assume a motherly, protective role under medical sanction. Of course, if he has to be in traction for a time, or has to have tonsil remnants or other necessary foci of infection cleared, then there is an unconscious satisfaction of certain masochistic needs that he may have. Masochism is not a medical term, but is a descriptive word symbolizing the tendency of people to get some satisfaction from pain or punishment. This may be of a "moral" type, in which the punishment serves as a penance and helps to appease guilt feelings.

In a discussion of therapy, it is to be noted that, given a case with a pain in the neck due to increased muscle tension, it is probable that any of a dozen therapies might have a certain measure of success. That is why the chiropractor is still in business, and it is the reason why all cases of this type are not subjected to a psychotherapeutic method. It is probable that with any type of therapy perhaps 30% would be improved; 40% slightly better or unchanged; and about 30% become progressively worse. Such a batting average allows for a variety of treatment, and there is no great urgency for physicians to learn to treat disorders of personality functioning or to help patients to attain a corrected emotional life.

If one wishes to do definitive treatment in these cases, it is necessary to have some understanding of the psychodynamics of personality dysfunctioning; and with this knowledge, one only has to apply commonsense and good judgment to work out a method of treatment. An attempt to symbolize some of the basic facts in psychotherapeutic medicine has been made in the exhibit prepared for this meeting.

To epitomize what is presented, it can be said that psychotherapeutic treatment is based upon uncovering techniques; that is, uncovering conscious and subconscious conflictual emotions and experiences, and by means of the physician-patient relationship, which has been termed "transference", to allow the patient to have corrective emotional experiences. With this and with supportive measures inherent in the relationship with the patient, there is alleviation of anxiety, relief of emotional tension, an increase in confidence and an improved ability to tolerate stressful situations.

In conclusion, if no other point is made, it should be emphasized that the end results, which in this case are represented by pain in the neck, can never be understood by just considering the pain as a static symptom. Like the events of history or some economic, political or social catastrophe, they can only be understood by a study of the conditions under which these end results developed. Behind any symptom or any fact, there is a dynamic story which is interesting, at times fascinating, and always points the way to remedial measures.

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THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum (or Pabena) can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

Headaches from Otolaryngologic Viewpoint; Origin and Mechanism*

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By far the most common symptom complained of by the patients coming to the otolaryngologist is that of headache. The average patient associates sinusitis with headaches and assumes that a sinus infection must necessarily be accompanied by headache. Sinusitis is a rather common subject of conversation in the public's social life. The seriousness of the case is often described in terms of headache. The sinuses however account for only a small percentage of all headaches. Headache is entirely absent in many cases of sinusitis.

There is evidence that the symptom of headache has been with man since the dawn of history. Skulls have been found which show that trephining was practiced by the Aztecs and Incas. Evidence of healing was found in some showing that the operators were rewarded with some degree of success in letting out the evil spirit and at the same time preventing the other spirit from getting away. Stone carvings likewise show that attempts were made to deal with the problems of headache.

Headache is a symptom. It is no more an entity than pain elsewhere. This pain may arise from the sinuses, the nasal mucosa, the teeth, the ears, the blood vessels or the nerve structures themselves. The thought that must always come to mind is, just how is pain produced; can it be referred to distant structures and if so, what is the mechanism.

Recent work on the mechanism of head pains has weakened if not toppled some of the old theories of the production of pain and its extension to adjacent and distant structures.

The theory of the vacuum headache so often mentioned by clinicians and given prominence by Sluder is now being questioned by observers. The reason for its occurrence was never satisfactorily explained. Recent experiences with men in the air corps show that it seldom occurred even though extreme and rather sudden air pressure changes were encountered by the fliers.

Another commonly accepted belief of pain in the sinuses as being due to pressure of pus or secretion trapped in the sinus is likewise being questioned. Wolff has shown by laboratory experiments that the antrum lining can stand pressure up to 200 mg. of mercury for several hours without producing pain.

Swelling of the lining of the sinuses to as much as one centimeter in thickness has occurred without the production of pain.

There are three possible reasons for the findings mentioned above: (1) The sinus mucosa is relatively insensitive to pain. (2) The absence of inflammation. (3) The fact that there was no intranasal swelling or engorgement.

SENSITIVITY OF NASAL AND PARANAL STRUCTURES

The structures of the nose and paranasal sinuses have been tested by faradic, mechanical and chemical stimuli to determine their sensitivity to pain. The order of the sensitivity is as follows: (1) The mucosa of the nasofrontal duct. (2) The sinus ostia. (3) The turbinates. (4) The septum and the floor of the nose. (5) The sinus mucosa as mentioned previously is relatively insensitive.

Pain from stimulation of these structures is referred to areas other than the point stimulated. In character such pain is of a deep aching nature, diffuse, sustained, non pulsating and associated with lacrimation, photophobia, erythema and hyperalgia. The pain and associated effects outlast the period of stimulation. The pain is referred chiefly to the region supplied by the second division of the fifth nerve and to a lesser degree to the first division.

LOCALIZATION OF REFERRED PAIN

Pain from stimulation of the superior nasal structure is referred to the frontal region, the vertex, in and between the eyes.

Pain from stimulation of the middle and inferior nasal structures is referred to the zygoma, temple, teeth and jaws. Therefore we might say that: (1) Pain from the sinus disease comes mainly from the nasal structures and not so much from the sinus walls. (2) If a headache is not associated with turbinate engorgement and inflammation it is in all probability not the result of disease of the nasal and paranasal structures. (3) If a zygomatic, frontal, temporal or vertex headache is not reduced by local shrinking or anesthesia it is in all probability not sinus or paranasal in origin.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

In experimental stimulation of the nasal structures pain was never referred to the back of the head or neck. Pain in the occipital region associated with pain in the nasal area was thought to be due to the secondary effects of prolonged contraction of the cervical and scalp muscles.

Sources of pain involving the fifth nerve outside the nose should be reviewed. A very common source of pain is from unerupted teeth, especially the third molars, also from root and pulp pathology. Pain often occurs from an infected anterior molar or bicuspid tooth. The pain usually is referred deep in the face or up into the temple simulating sinusitis. A malignant tumor in the antral wall may produce a similar pain.

Tumors deep in the lateral wall of the nosepharynx may involve the fifth and other cranial nerves. Lympho epitheliomas and sarcomas may produce pain referred to the teeth and sinuses often before attracting attention to the nasopharynx by bleeding, pain locally or nasal obstruction.

THE FACIAL NEURALGIAS

The neuralgias of the head arise more commonly from the first two divisions of the fifth cranial nerve. Pain arising through the glossopharyngeal nerve is likewise encountered. The more commonly mentioned facial neuralgias are as follows: (1) Trigeminal. (2) Sphenopalatine and vidian. (3) Glossopharyngeal. (4) Neuralgia from disturbances of the temporomandibular joint.

Trigeminal neuralgia is a fairly common condition rather easy to diagnose. It is characterized by pain of sudden onset, sharp, lancinating and knifelike, involving the second and third divisions of the fifth. There are trigger zones about the face which react to light, contacts, muscular action or draughts of air. It is usually seen in patients past middle age. The pain is unilateral and may last from a few minutes to a few days. A secondary type is sometimes seen associated with dental and nasal pathology. In this type there are no trigger zones. The attacks last longer but are generally less severe.

Vidian and Sphenopalative Neuralgia. Sluder was the first to describe sphenopalatine neuralgia and he thought it due to disease of the sphenopalatine ganglia. He described the symptoms as a lower half headache. The pain begins at the root of the nose, in and about the eye, the upper jaw and teeth and extends to the zygoma, the ear and mastoid region—a few centimeters posterior to the auricle.

The pain from sphenopalatine irritation varies in distribution to several nerves due to the wide spread of the fifth nerve nuclei in the pons and spinal tracts. Pains are referred to the neck, shoulder and arms.

Larsel believes that these referred pains are due to connections in the spinal tracts with the segmental autonomic nerves in the lower segments of the cord which supply the vasomotor innervations of the arteries of the regions involved in the lower half headaches. He believes the cause of the pain is an ischemia resulting from such reflex impulses.

Vidian Neuralgia. Vail believed that many of the conditions described by Sluder as sphenopalatine neuralgia are actually irritations of the vidian nerve in the floor of the sphenoid sinus due to a sphenoiditis. He was able to demonstrate in certain cases that irritation of the vidian nerve through an operated sinus window produced the syndrome, although direct irritation of the ganglion failed to do so.

It is well at this time to mention some of the sources of irritation in the nose. It is an open air space exposed to dust and other irritants. Anatomical obstructions, tempory vasomotor or inflammatory conditions which might direct a stream of air to strike a small area of the mucosa instead of allowing it to spread evenly over the entire surface, may produce pain.

Overoperated noses may account for pain (1) Because the air stream may be distorted; (2) Nerve elements may be caught in the scar and (3) Because loss of functional (gland) tissue may interfere with the proper amount of moisture.

Atrophic rhinitis may also produce headache due probably to overdrying and to lowgrade inflammatory reactions.

Glossopharyngeal Neuralgia. True glossopharyngeal neuralgia is relatively rare. The pain is referred to the ear, with a trigger zone in the tonsil area. A secondary type more commonly seen may be due to inflammation in the tonsil area and tongue. Most of us have encountered earache following a tonsillectomy. The middle ear findings are usually negative. The ear pain is carried by a branch of the glossopharyngeal nerve to the middle ear.

OCCIPITAL HEADACHES

Other than referred pain from nasal origin several other entities have been mentioned as producing occipital pain, namely (1) Nodular indurative or myalgic headache; (2) Abscesses in the nasopharynx (Thorn Walds), and (3) Inflammation in the prevertebral space (Proetz).

Nodular Indurative Headache. This condition was described by Auerbach. The name indurative is derived from the presence of indurated, tender areas or nodules in the cervical muscles. Some use the name myalgic to better indicate the origin of the condition. It is found most commonly in the occipital muscles or fascia. There may be spasm of the muscles without nodules. The pain seems to be produced by irritation of sensory nerve endings by the nodules and spasm. The condition has been described as myalgia, fibrositis, as hypertonic neck muscles, and arthritis.

The etiology is not definitely known. Predisposing factors are: (1) High nervous tension. (2) Occupation-fixed position of the head while working. The pain occurs almost exclusively in the postural muscles. (3) Allergy. (4) Endocrine disturbances. (5) Age, chiefly in adults. (6) Exposure to colds and draughts. The main symptom is pain in the occipital region which is dull and usually unilateral. It is made worse by movement. The pain may radiate to the forehead, eyes, and temples. There is tenderness over the muscles involved.

The condition has been found to involve the sternomastoid muscle at its attachment to the mastoid tip.

There are no findings and the x-rays are negative. Treatment consists of the use of anti-neuralgics, massage, and foreign proteins. The patient should avoid chilling and fatigue.

ABSCESSES OF THE NASOPHARYNX

Yankauer reporting a large number of cases of abscess of the nasopharynx showed that two-thirds of the cases complained of occipital headache. This group represented what he called closed abscesses (no drainage). In about one-half of the patients complaining of pain they described the pain in a peculiar way. The pain felt in the back of the head resembles the pain of the sphenoid sinusitis. However, a patient with a sphenoid sinus will cover the entire occipital region in placing the pain, whereas a patient with a nasopharyngeal abscess will generally point with his finger to a particular spot as the location of the pain.

INFLAMMATION OF THE PREVERTEBRAL SPACE

Proetz believes that cases sometimes diagnosed as sphenopalatine neuralgias are the result of inflammations in the prevertebral space. This space lies posterior to the retropharyngeal space and is separated from that space by a thin but very tough aponeurosis. This space extends far around the bodies of the vertebrae coming into relationship with the roots of the second cervical nerves which terminate in the occipital nerves. Pharyngeal infections may reach this space causing occipital pain throughout the distribution of the brachial plexus. These he believes are inflammations and seldom form abscesses.

EARACHES—INTRINSIC AND EXTRINSIC

The two main intrinsic causes of earache are (1) the acute middle ear inflammation associated with the mastoid and internal ear (2) The external ear inflammations as furuncles and diffuse inflammations.

The generally less serious of the two the acute external otitis is characterized by a pain which is often excrutiating and sustained for several days before subsiding.

The acute middle ear disease during the early hours of inflammation may be quite painful but the complications which may follow such as mastoiditis, lateral sinus thrombosis and petrositis may be comparatively painless. The pain when it does occur may be a dull aching pain referred to the temple or towards the corresponding eye. Extrinsic earache referred from distant structures frequently occurs. These are sometimes referred to as reflex otalgia.

A brief review of the innervations of the sensory nerve supply of the ear will aid in understanding the pathways.

The ear drum receives its sensory nerve supply from the following: The posterior portion is supplied by Arnolds nerve, a branch of the tenth cranial nerve. (Vagus) The anterior portion is supplied by the auriculotemporal, a branch of the fifth. The inner surface of the drum is supplied also by Jacobsons nerve of the ninth and a small sensory branch from the seventh enters the middle ear cavity. Branches from the carotid sympathetic plexus also enter the ear.

Thus we have sensory branches from the fifth, seventh, ninth, tenth, and the cervical sympathetic supplying the ear. Pain from the pathology in the ear is seldom referred to distant areas. An acception is the referred reflex of cough on probing in the ear. More than half the cases of pain referred to the ear are of dental origin. Most of these are from the lower jaw—unerupted teeth especially third molars, and dental caries. Infants "cutting" teeth may often tug at the ears. Malaclusion of the molar teeth or improperly fitting dentures produce trauma in the temporomandibular joint and irritation of the temporamandibular nerve lying in the medial portion of the joint may reflexly produce pain in the ear.

Pathology in the salivary glands, side of the tongue or stones in the salivary ducts may cause pain in the ear via the lingual branch of the fifth nerve. Sphenoid sinusitis occasionally produces pain referred to the ear. This reflex is via the greater superficial petrosal nerve to the geniculate ganglion. This source of pain is not common. Pain referred from the ninth cranial nerve has already been mentioned in discussing glossopharyngeal neuralgia. Pathology in the larynx may produce pain which can be referred to the ear via the superior laryngeal nerve through the Vagus (Arnolds nerve).

Thus far I have discussed pain due chiefly to irritations of the nerve endings and to pain due to conditions in the nerve ganglia.

VASCULAR HEADACHES

Vascular headaches are more frequent than all other types. They depend upon certain physical effects such as pressure, tension or distortion of pain, sensitive structures of the head, cranial and intracranial. Recent experimental work done on exposed intracranial structures during surgical procedures has revealed most of the sensitive and insensitive structures of the head. All of the structures covering the cranium are more or less sensitive to pain, the arteries especially so.

Of the intracranial structures, the great venous tributaries from the surface of the brain, parts of the dura at the base, the dural arteries and the cerebral arteries at the base of the brain, the fifth, ninth and tenth cranial nerves are sensitive to pain.

The cranium (including the diploic and emissary veins, the parenchyma of the brain, most of the dura and the pia arachnoid, the ependymal lining of the ventricles and the choroid plexus) are not sensitive to pain.

From the data available six basic mechanisms of headache from intracranial sources have been formulated.

Headache may result from: (1) Traction on the veins that pass to the venous sinuses from the surface of the brain and displacement of the great sinuses. (2) Traction on the middle meningeal artery. (3) Traction on the large arteries at the base of the brain and their main branches. (4) Distention and dilatation of the intracranial arteries. (5) Inflammation in and about any of the pain-sensitive structures of the head, and (6) Direct pressure and distortion by tumors on the cranial and cervical nerves containing many pain afferent fibres from the head.

Thus traction, distention, pressure, dilatation and inflammation of pain-sensitive intracranial structures produce the pain (headache).

Some of the commonly known headaches belonging to this group are: migraine, histamine, hypertension, fever and tumor.

The theory of the mechanism in brief, of these are as follows: The migraine headache is produced by distention of the cranial arteries, chiefly the external carotid. In very severe migraine the cerebral and internal carotid may also cause pain. Their part is not clear since increasing the intracranial pressure does not relieve a migraine as it does a histamine headache.

Changes in the intensity of the migraine headache are related to changes in the amplitude of pulsations of the cranial arteries, chiefly the branches of the carotid artery.

Ergot reduces the amplitude and so lessons the pain. Pressure (digital) on the carotid artery may do the same.

Histamine headache is thought to be primarily due to dilitation and stretching of the pial and dural arteries and surrounding tissues (Basilar cerebral and vertebral arteries at the base of the brain).

The mechanism of headache from fever is similar to that of histamine.

Brain tumor headache by distortion of pain sensitive structures and not to intracranial pressure.

Time does not permit a detailed description of the symptomatology of this group. Most of you are familiar with the periodic migraine headache which is characterized by paroxysms of pain, usually unilateral, preceded by scotoma and associated with nausea and sometimes vomiting.

I have tried to cover the etiology and chiefly the mechanism of the common causes of head pain. I have omitted the atypical types.

Recent experimental work has shaken some of the old theories concerning the production of headache pain. Recent research on the "live-cadaver" has given us a better understanding of some headache problems.

It is obvious from the wide source of head pain that not only a thorough physical examination is necessary but that a careful and detailed history of symptoms are also necessary.

It is likewise obvious that a good general knowledge of medicine is necessary to place the cause of the pain and thus save the patient many trips from one office to another.

There remain many unsolved problems and for that reason there are times when a headache for the patient also becomes a headache for the doctor!

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* * *

IN THIS ISSUE

DR. CHARLES DOAN needs no introduction to the readers of this Journal. Many of us enjoyed his lectures and clinic at the Omaha Mid-West Assembly in October, 1945. Dr. Doan is not only one of the greatest hematologists of this era; he is also a good fellow. He has gone to the trouble of completely revising the original manuscript in order to bring the material strictly up to date. The paper is on page.................... 93

THOUGH histoplasmosis is not a common disease, its existence must be appreciated. The diagnosis always constitutes a challenge to the training and resourcefulness of the physician, and it is for this reason that we are thankful to Drs. Conlin and Hankins for the privilege of recording this interesting case. Page........................ 101

IN 1944 we published a paper by Dr. McGoogan on "Local Anesthesia in Caesarian Section." From thirty-seven cases then reported, Dr. McGoogan now records his experiences with this method on 67 additional cases. Read this follow-up on page.......... 104

DR. RICHARD YOUNG has the fortunate quality of combining sound knowledge with logical reasoning in human relationships. Is there a psychiatric aspect to pain in the neck, and if there is, how and why does it come about and what can you do for it? The paper is worth reading, not only because his viewpoint is interesting, but also because the writing is excellent. See page.................. 107

WHEN you get through with the previous discussion, read about the origin and mechanism of aches and pains higher up in the human body. Why and how do disturbances in the ear produce headaches? Dr. Watke has a reasonable answer on page.............. 109

WE have published several papers in recent years on the pitfalls in laboratory diagnosis of syphilis. These pitfalls are not theoretical. They are real. They can save you trouble and embarrassment if you recognize and side-step them. How? Turn to page.. 114

ATRESIA of the nares, according to Dr. William Shearer, is a rather rare condition, and we presume that not every doctor is eager to undertake an operation for its correction. The procedure, however, appears comparatively simple; at least the description of it does. Look on page.................. 116

WE are indebted to Dr. Rudolph Schenken for a case report on tubal abortion with comprehensive discussion of the diagnostic and pathologic findings. The report is found on page.. 117

Fitfalls in the Serologic Diagnosis of Syphilis*

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A discussion of the pitfalls in the serological diagnosis of syphilis should call attention to the features necessary for making a diagnosis of syphilis. As in any other phase of medical diagnosis, three features are of importance, namely the history, the physical examination, and laboratory aids. The importance of each of these items varies with the stage at which the disease or suspected disease is seen. The absolute diagnosis of syphilis is best made by detection of spirochetes in the primary or secondary ulcerated skin lesions. In the strictest sense, the diagnosis can be made specifically only on the identification of the spirochetes. At any stage in the disease the diagnosis must be arrived at by proper evaluation of information obtained from the three examinations just mentioned, that is history, physical examination, and laboratory findings.

Serological tests, properly conducted, are of much value as aids in the diagnosis and treatment of syphilis. Common sense in their use and interpretation is essential. They are not a royal and easy road to diagnosis but are essential aids in evaluation of the patient, and indeed, in many cases of long standing, they may be the only positive finding and may be the sole means of detecting the disease. The final judgement and responsibility in interpreting the tests is a function of the clinician. The function of the laboratory is to do an accepted test properly, and to report the findings accurately as they are determined.

There are two general types of serological tests in general use: First, is the complement fixation test more frequently spoken of as the Wassermann test, although the technics as now used are far removed from the proposals of Wassermann. They have been changed in many particulars although the general scheme has been retained. The complement fixation tests are comparatively complicated requiring a number of steps in the conduct of the determination, and therefore, have the possibility of technical errors at several points. The final result is easily read. The second type of test is the flocculation procedure which has been very widely used in recent years and has undergone numerous modifications and consequently appears under the names of many people. The technical procedure is much more simple requiring only an antigen suspension and serum. The test is more difficult to read than the complement fixation test. The skill necessary in performing either test is approximately comparable.

There is no one best test. All of the commonly employed tests have satisfactory levels of sensitivity and of specificity if they are properly performed. The major emphasis, then, should be on the skill and experience of the person conducting the test rather than on the individual test which may be performed.

All of these serological procedures use an approximately comparable antigen obtained from beef heart. These antigens are, therefore, nonspecific. The antigen has been modified in a variety of ways by the various authors of tests aiming at obtaining an antigen of high sensitivity and high specificity. Ideally a test should detect every case of syphilis and should give a negative reaction in any case not having syphilis. Actually that state is not possible since the margin between the normal and the abnormal individual is so narrow that adjusting the sensitivity to a higher level results in too many false positive reactions. More specific antigens and better knowledge of the blood changes responsibile for positive tests are necessary before the ideal test can be developed. One may think of the testing of syphilis as detecting a change in the amount of a substance in the blood which is present in all individuals but varies in amount in different persons. It is increased in syphilis so the ideal range of sensitivity is to detect amounts just above that of normal individuals, but to detect the slightest increase due to syphilis. Since the amount varies in different normal individuals, the level of sensitivity cannot be stated as an absolute value.

False positive reactions mean those positive serological tests seen in persons who do not have syphilis. There are two main groups of these false positive tests. First, are technical errors which may occur at any time in any laboratory. The numbers, however, are related quite closely to the skill and experience of the person making the test. In the several nation-wide evaluations the figure has ranged from zero to .6% false positives. The ideal, of course, is to maintain this figure at zero but in practical determinations .5% or less must be expected. The second group of false positives are called biological false positives since they represent variations in the blood of the individual tested resulting in positive reports from the laboratory. In various surveys from 1 in 1,000 to 1 in 4,000 persons are found to give positive tests. These are in individuals who are very carefully studied and on whom the possibility of syphilitic infection can be almost absolutely ruled out. These tests have been positive particularly in patients with high total serum protein and with high serum globulin. These determinations should be done when the serological report is not consistent with the clinical history and physical findings. Several authors have proposed verification and differential methods for identifying this group of false positives.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

These tests have been helpful in some cases, but again they are not specific in their differentiation. Another group of false positives occur in patients with disease other than syphilis. Contrary to some earlier reports, pregnancy, menstruation and jaundice do not give positive results with the currently used tests. No malignant diseases give positive results. Fevers, either natural or induced, have resulted in positive tests in from 1-2% of cases in several series. These false positives become negative on recession of the fever. Tuberculosis has given false positive tests in a sufficient number to be remembered, although the number is ordinarily reported as under 2%. Vincent's infections have been reported as giving positive tests, although I have been unable to find any specific figures as to the actual instances of false positive reactions. Other spirochete diseases, particularly yaws, relapsing fever, rat-bite fever and leptospirosis have given positive reactions in from 50-100% of infected individuals. Leprosy has given positive tests in from 15-75% of individuals tested. While these several diseases are uncommon in civilian practice, several are seen occasionally and because of their infrequency they are often serious diagnostic problems. Malaria has given positive reactions in from 10-20% of the cases in some reported series, and again, while not particularly common in this territory, is seen often enough that its presence and this complication must be borne in mind. Infectious mononucleosis has been reported as giving false positive tests in an appreciable number of the cases. While some series have been reported giving no positive reactions, other groups have been reported with as high as 25% false positives. This, it seems to me, is one of the more important conditions to consider since it is wide-spread in this territory, and is also especially prevalent in the young adult group where early luetic infections are to be anticipated. The positive reaction in the tests subsides in from 2-4 weeks. Vaccina results in false positive reactions in a very appreciable proportion of cases, but this reaction is also of quite short duration. This type of reaction was noted in the armed forces where vaccination was universally used. Practically all of these reactions have subsided in 2-3 weeks, although a few have persisted as long as 4 months. In these latter infections the history and other laboratory procedures are most helpful in establishing the identity of the reaction.

In summary, serological tests for syphilis are an important and necessary aid in the diagnosis and evaluation of patients with syphilis. Since the test is nonspecific it is not perfect and must therefore be used as an aid and not as the only criterion for diagnosis. In the earlier stages of the disease it is positive in nearly 100% of the cases, but in cases of some years' standing nearly 50% may fail to show a positive reaction. The test is also positive occasionally in non-infected individuals so that care and caution must be exercised in evaluation of these tests.

The diagnosis of syphilis depends on the careful evaluation of history, physical examination and laboratory tests.

LIQUID PAN-VATINE

Liquid Pan-Vatine, a new multivitamin drop product, designed as a dietary supplement for infants and children, has been released by The Smith-Dorsey Company, of Lincoln, Nebraska, a member firm of the American Pharmaceutical Manufacturers' Association.

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Atresia or Stenosis of the Nares

WM. L. SHEARER, B.S., A.B., M.S., M.D., D.D.S., F.A.C.S., F.A.C.D.
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Atresia of the nares is a rather rare condition. It is most commonly found in connection with other congenital anomalies such as cleft palate, cleft lip, postanal dermoid, spina bifida, club foot, et cetera. It is a most distressing condition because the afflicted must breathe entirely through the mouth. As a result of this, feeding is most difficult and the development of the chest is practically negative until this condition is corrected.

The opening of the nostril does not represent a very serious problem, but the maintaining of the opening presents many difficult problems.

Thirty-eight years ago, I conceived the idea of a type of management, which, so far as I know, had not been presented to the profession up to that time. I shall give my technique and idea of management so that, if anyone should encounter such a problem, he may find this technique and management to be of value.

Choose a rubber catheter the size you wish to use. Vulcanize a flange, one end rather large, leaving, of course, the catheter open, or you may use a larger catheter stretched over the end of the smaller and fastened with sutures. When the atresia or stenosis is taken care of, one can pass down the nares with a Brophy throat forcep and pick up a ligature which has been tied to the end of the catheter. In this way the catheter can be pulled from behind the palate through the nose. The large, round bulb end can not then be pulled through the nostril as an ordinary catheter would be. Then the catheter is cut off at the proper length and fastened loosely around the columella of the nose. This allows the child to breathe air freely while a new membrane is being formed. If it is a bilateral atresia, the same procedure may be applied on the other side.

The catheter may be easily kept open by warm salt water irrigations. If it should plug up at all, it is a simple matter to open it with a long, thin, ordinary probe, and continue to wash and keep it clean with saline solution. The catheter can be moved up and down several times a day along with many washings with salt water until the new membrane forms. Usually this requires a minimum of four to six weeks.

I have had five cases of congenital atresia or stenosis of the nares, either unilateral or bilateral, associated with congenital cleft lips and cleft palates. All of these have been managed in the manner described and have been very successful. The value of this procedure is enhanced since immediately the distress in breathing is overcome during the time healing and formation of a new membrane of the nose is taking place. Other procedures do not permit breathing during the formation of a new lining to the nose.

* * *

Pneumonia, following injury to the chest, can be prevented with large doses of penicillin or sulfadiazine, according to Edward Phillips, M.D., of Oakland, Calif.

Writing in the January 18 issue of The Journal of the American Medical Association, Dr. Phillips presents his observations on 73 patients treated at Permanente Foundation Hospital for pneumonia following injury to the chest.

Of these 73 patients, 43 had fractured ribs, one had a fractured shoulder blade and one had a fractured breast bone.

The author cites two investigators who demonstrated by animal experimentation how a blow to the chest, wih or without fracture of the ribs, can produce injury to the lungs. The blow stimulates the vagus nerve, which extends from the cranium to the lungs, to contract the bronchial tubes which results in a partial collapse of the lung. This collapse area becomes infected because it lacks aeration.

Injections of atropine into the veins, which paralyzes the terminal fibers of the vagus nerve, will prevent or minimize the chances of collapse and infection following injury to the chest, states the author. Large doses of pencillin and sulfadiazine will sterilize the lung area.

Additional facts regarding the 73 patients follow:

—In 54 patients (74 per cent) pneumonia developed only on the same side as the injury.

—The majority of patients had a mild type of pneumonia.

—Over 92 per cent of pneumonia cases occurred within six days of the injury.

—Over 50 per cent of the patients recovered within one week.

—Three patients died with a resultant mortality rate of 4.1 per cent.

Twenty-six consecutive patients with severe chest and lung injuries who were treated with large doses of either penicillin or sulfadiazine did not contract pneumonia or other complicating infections.

Proceedings of the Staff of Nebraska Methodist Hospital

RUDOLPH SCHENKEN, M.D., Editor
Omaha, Nebraska

Tubal Abortion

DR. J. F. HYDE (Clinical History): This case is that of a single girl, 26 years old, apparently in very good general health who had been living in California. A year ago for several months she went to a doctor every two weeks to have injections because her periods were scanty and pale but regular. Her last menstrual period was due on September 10, 1945 but she failed to menstruate. After about two weeks she went to her local physician who examined her and told her that everything was all right. I saw her first November 9, 1945. On November 7 she had had her first hard pain. She described it as an "awful stomach ache". She said it was all over her abdomen and when I asked her where it was most severe she said it was in the lower part of the abdomen. She had her first vaginal discharge on November 9, a small amount of the same pale, green colored fluid and the same amount as she had when menstruating. On November 12 she had some more hard pains and returned to see me on November 13. At this time I made a more complete examination. She was tender over the lower abdomen and more markedly so over the right side, but there was much rigidity which, by the way, you do not have in tubal pregnancies as a rule. Vaginal examination was painful to the patient. The presence of pain on pressure to the cervix was a very important sign of tubal pregnancy. Although it is not necessarily an indication of tubal pregnancy, it usually means intra-peritoneal irritation due to intra-abdominal bleeding. In addition I could feel a mass on the right side which caused pain when touched. She was operated upon that evening. There was no sign of shock, her pulse was normal and there was no sign of much loss of blood. When we explored the pelvis we found a mass of blood about the size of a hen's egg attached to the fimbria. The fimbria itself was very congested, thickened, very red and this mass was attached to the fimbria of the right tube. The uterine end of the tube was apparently normal with no rupture in the tube. I removed the distal half of the tube and all of the ovary which was somewhat enlarged. The appendix was also removed. She made an uneventful recovery.

In tubal pregnancy there may be repeated hemorrhages with the first one not so severe. The first case I ever saw was shortly after I began to practice. The patient died during the next 24 hours from hemorrhage, without operation. Pain accompanies the hemorrhages. When the hemorrhage stops the excrutiating pain lets up, but the tenderness remains. There is not much muscle spasm in the abdominal wall.

In intra-abdominal pregnancy, the fetus may die at any time or may go on to full term. There have been reports of babies being delivered alive. To do that you must deliver the baby before the uterine contractions begin. Otherwise, the baby invariably will be found dead. The most important thing in this type of operation is taking care of the placenta. There are different ways of handling it. You cannot remove it as a rule because of the danger of hemorrhage. Some leave it in for absorption; some will attach it to the abdominal incision and let it discharge.

DR. JOHN R. SCHENKEN (Pathological findings): The fallopian tube measured 4.0 cm. in length. Small amounts of clotted blood were attached to the serosal surface. The fimbriated end was patent and the lumen contained a few small clots. The mucosal folds were gray and granular. There was no evidence of rupture. A blood clot measuring 6.0 cm.x3.5 cm. accompanied the specimen. A smooth lined space, evidently the amniotic sac, was present in the center of the clot. The fetus was not present. The microscopic examination revealed chorionic villi in the blood clot and a chronic salpingitis. No evidence of a decidual reaction was present.

This is another way by which a tubal pregnancy can end.

The frequency with which the central portion of the tube as compared with the ampullary portion is involved in tubal pregnancy is difficult to determine. In the literature the central portion is more commonly reported. We wonder whether the ampullary portion might not be involved more commonly than it is generally appreciated. Central involvement usually ends in rupture and hence it becomes a dramatic surgical emergency, whereas ampullary involvement may end only in tubal abortion which may incite only a few abdominal cramps and therefore we never are able to find out just what occurred.

Chronic salpingitis is the one almost constant precusor of tubal pregnancy. It seems likely that the inflammation retards the progress of the fertilized ova and the trophoblasts become embedded in the tubal mucosa. Much has been written about the infantile type of tube and endometriosis as predisposing factors but we have yet to see a tubal pregnancy in a noninflamed tube. Williams emphasized the role of diverticulosis as a cause of tubal pregnancy. This is probably correct but the diverticulosis is undoubtedly based on an inflammatory process as we have recently reported in the literature.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

DO NOT FORGET
The Annual Session of the Association,
April 28 to May 1st.
Make Hotel Reservations Now!

According to newspaper reports, smooth operation of a program to permit Nebraska veterans to obtain treatment at VA expense from their own physicians for service-connected disabilities is being endangered by silence.

Ashley Westmoreland, Lincoln regional manager for the Veterans Administration, explained that too many veterans are failing to tell their doctors promptly that they expect the VA to pay for the treatment they seek.

Out-patient treatment for a service-connected disability by a private physician may be authorized and paid for by the VA provided the VA receives notice within 15 days from the date the treatment begins, Westmoreland said.

In emergency cases where immediate hospitalization is necessary, the VA's medical officer at the Lincoln regional or the Omaha sub-regional office must have notice within 72 hours after the veteran has been admitted to the hospital in order to authorize any pay for hospitalization and treatment.

"More and more cases are coming to light in which the veteran waited until long after the treatment was completed to tell the doctor to bill the VA for his services," Westmoreland said. "Such delays may keep the physician from getting his fee and in the long run may cause the whole program to bog down."

He urged veterans, if at all possible, to clear with the VA before seeking treatment and, in any event, to tell their physicians in advance if the treatment is expected to be at VA expense.

Westmoreland warned, too, that non-service-connected disabilities are not eligible for treatment at VA expense under this program.

A two-day regional meeting of the American College of Surgeons will be held March 14 and 15 at the Hotel Fontenelle, Omaha.

The meeting will be one of a series of seven conferences in different parts of the country during March and April.

The program of the Third American Congress on Obstetrics and Gynecology to be held September 8-12, 1947, in St. Louis will feature general sessions for all groups making up the Congress as well as smaller individual group meetings and round table discussions. The morning sessions will be panel-type presentations of the following subjects: Tuesday, Sept. 9: Anesthesia and Analgesia; Wednesday, Sept. 10: Cancer; and Thursday, Sept. 11: Caesarean Section.

The afternoon meetings of the medical section of the Congress will consider on Tuesday: Psychosomatic Aspects of Pregnancy; on Wednesday: Pregnancy Complicating Cardiac Disease, Diabetes and Tuberculosis; and on Thursday: Recent Advances in Endocrinology.

Round table discussions from four o'clock to five daily will consider such topics as etiology of abortion, asphyxia, fibroids, prolonged labor, infertility, early ambulation, adolescence, treatment of abortion, genital relaxation, ovulation, the menopause, the cystic ovary, uterine bleeding, nutrition in pregnancy, geriatric gynecology, endymetriosis and erythroblastosis.

Concurrent sessions and round tables for nurses, hospital administrators and public health workers are being arranged.

The popular forceps and breech demonstrations that attracted so much attention at the Second Congress in 1942 will be increased in number so that eighteen demonstrations per day will be held, six each at nine, one and five o'clock daily.

A large Scientific and Educational Exhibit is being set up under the direction of Dr. J. P. Pratt of Detroit and a comprehensive Motion Picture Program is being arranged by Dr. John Parks of Washington, D. C. The committees assisting these doctors will review applications by prospective participants late this spring. Anyone wishing to make application for space in the Scientific Exhibit or for time on the Motion Picture Program may obtain the proper blanks from the office of the Congress at 24 West Ohio Street, Chicago 10, Illinois.

WOMAN'S AUXILIARY

The new officers for the year 1946-1947 for the various state medical auxiliaries are as follows:

TRI-COUNTY NO. 2—
President, Mrs. A. O. Fasser.
Vice President, Mrs. Andrew Harvey.
Sec.-Treas., Mrs. W. H. Hill.

6TH DISTRICT—
President, Mrs. P. O. Marvel.
Vice President, Mrs. Dora Eckles.
Secretary—Mrs. H. S. Eklund.
Treasurer, Mrs. Robert Karrer.

DOUGLAS COUNTY—
President, Mrs. Herbert F. Gerald.
President-elect, Mrs. George E. Robertson.
Vice President, Mrs. John C. Kennedy.
Secretary, Mrs. John A. Borghoff.
Treasurer, Mrs. James Donelan.

ADAMS COUNTY—
President, Mrs. L. F. Egen.
Vice President, Mrs. C. W. Guildner.
Sec.-Treas., Mrs. L. W. Rork.

LANCASTER COUNTY—
President, Mrs. Fritz Teal.
Vice President and President-elect, Mrs. Paul Royal.
Secretary, Mrs. Richard Still.
Treasurer, Mrs. Maynard Wood.

HOSPITAL NEWS

A long range 14-point rural hospital program for Nebraska was outlined to the first health institute held Thursday as the closing feature of Organized Agriculture at the University of Nebraska college of agriculture. The session attracted people from all parts of the state.

Dr. D. M. Alderson, director of the Nebraska hospital survey, outlined the long-range program. He said it would not provide rural people all of the services so readily available to people in metropolitan areas but it would bridge the gap whereby preventitive services can be provided and would be a means of making more specialized curative services within reasonable reach.

Among the points offered in the long range program:

1. Hospitals should be constructed only in communities whose size, availability of medical and technical personnel, economic conditions and other factors justify.

2. Location of rural hospitals contingent upon reasonable expectation that high quality medical care can be developed and maintained.

3. Hospitals should be designed to act as focal point from which all health services in area emanate.

4. Should be minimum of 15,000 persons living within radius of not more than 30 miles in order to justify construction of hospital of 40-50 bed capacity which is deemed to be smallest unit in which ade-

quate services can be provided and which can be operated economically and efficiently.

5. Hospitals of small size (50-100 beds) should establish working relations with larger hospitals in order that services of consultants in professional services may be readily available.

Dr. Alderson said one of the major problems confronting the state concerns the availability and quality of medical care and hospital facilities in rural areas. Studies, he said, reveal deficiencies in hospital and medical service in small villages and their adjacent areas.

Setting up of a public health and medical service center in areas where density of population does not justify construction and operation of a hospital was suggested by Dr. Alderson. The center would relieve the critical situation now existing by serving the health requirements of the area in a limited but effective manner, he said.

—From Lincoln Star.

QUERY PHYSICIANS WHO WERE IN CIVILIAN PRACTICE DURING WAR

To obtain information on which to base recommendations for the medical care of the civilian population in the event of another national emergency, the American Medical Association is sending out questionnaires to 5,000 physicians, selected at random, who remained in civilian practice during the war years, Dr. Edward L. Bortz, chairman of the Committee on National Emergency Service, announced today.

The results of the questionnaire to civilian physicians will be studied and coupled with information obtained from a similar questionnaire sent out to physicians who were in military service during the war, Dr. Bortz said. The data collected, plus detailed information and opinions solicited from several hundred physicians who held key military and civilian positions, will serve as the basis for recommendations to be made to the House of Delegates of the American Medical Association on June 9-13.

"The 5,000 physicians who will receive the civilian medical care questionnaire are such a small sample of the total number who remained in civilian practice that it is of utmost importance that we receive a response from every physician receiving the questionnaire," Dr. Bortz said. "Otherwise it will be impossible for us to get an adequate overall picture of the medical service which was available to civilians during the war years."

The civilian questionnaire is composed of some 60 questions, divided into three sections: general information, civilian medical care and proposals. The general information questions establish whether the doctor engaged in individual practice, group practice, federal, state or local health administration, teaching, research or industrial practice; and also whether he was in general or specialized practice. There are two percentage questions under the civilian medical care section to indicate the amount of increase or decrease in the doctor's case load during the period 1941-1944.

The remainder of the questionnaire has to do with the manner in which civilian physicians served on examining boards for Selective Service; the effect of war measures on local hospital and public health facilities and medical care which would have been available in the event of an epidemic.

The Committee on National Emergency Service of the American Medical Association was created by the House of Delegates in its annual session in December, 1945 to study the experiences of medical officers during World War II.

The committee includes four civilian physicians who were in military service during the war and three who were not. Originally known as the Committee on Military Service, its title was changed to Committee on National Emergency Medical Service, since some of the problems encompassed were not covered in the original title.

To obtain important factual data concerning war experiences of physicians serving in the armed forces, the committee last fall sent out questionnaires to 50,616 former medical officers. In addition, several hundred physicians in key military and civilian positions during the war were requested to give detailed statements of their experiences and expressions of opinion as to methods by which use of medical personnel could be improved.

On the basis of an interim report of the Committee on National Emergency Service given before the House of Delegates in its meeting in December, the committee was instructed to enlarge its study to sample the experience of civilian physicians and to report its findings to the June meeting. The House of Delegates recommended that more consideration be given the care provided for the civilian population in a future national emergency because of changes in the types of offensive and defensive warfare.

The Bureau of Medical Economic Research of the American Medical Association has assisted the committee in developing both questionnaires and will make an analysis of the returns.

The committee, headed by Dr. Bortz, includes Drs. Harold S. Diehl, Minneapolis; Perrin H. Long, Baltimore; Harold C. Lueth, Omaha; O. O. Miller, Louisville; James C. Sargent, Milwaukee, and V. C. Tisdal, Elk City, Oklahoma.

"We obtained excellent cooperation on our previous questionnaire," said Dr. Bortz. "We urge the 5,000 doctors receiving the new questionnaire to send in the information as soon as possible. We hope the doctors will sign their names, but even if they are unwilling to do so, it is of utmost importance that each supply the information requested."

NATIONAL CONFERENCE ON MEDICAL SERVICE

The twentieth annual meeting was held in the Palmer House, Chicago, February 9, 1947, with the following program:

9:00 a.m. Registration, Red Lacquer Room, Fourth Floor.

9:30 a.m. Call to Order and Address of the President, Cleon A. Nafe, Indianapolis, Ind.

9:50 a.m. "The Eightieth Congress," Joseph S. Lawrence, Council on Medical Service, American Medical Association, Washington, D. C.

10:10 a.m. "The Operation of Public Law 725: The National Hospital Construction Act," Herman E. Hilleboe, United States Public Health Service, Washington, D. C.

10:40 a.m. Discussion Period.

11:00 a.m. "Veterans Care: Where Do We Go from Here?" Paul B. Magnuson, Veterans Administration, Washington, D. C.

11:30 a.m. "Medical Cooperatives," Mr. L. S. Kleinschmidt, Council on Medical Service, American Medical Association, Chicago, Illinois.

11:50 a.m. "Developments in the Council on Medical Service," Mr. Thomas A. Hendricks, Council on Medical Service, American Medical Association, Chicago, Ilinois.

12:15 p.m. Luncheon.
"Warning: S-Curves Ahead!" Mr. Clarence A. Jackson, Executive Vice-President, Indiana State Chamber of Commerce, Chairman of the Social Security Committee of State Chambers of Commerce, and member of the United States Chamber of Commerce Social Security Committee.

2:15 p.m. Open Forum — "Modern Influences in Medical Practice: Undergraduate Medical Education: Trends Towards Specialization; General Practitioners in Hospitals; Hospital Staff Organization."
Moderator: Creighton Barker, New Haven, Connecticut.
Duncan W. Clark, Associate Dean, Long Island College of Medicine, Brooklyn, New York.
B. R. Kirklin, Secretary, Advisory Board for Medical Specialties, Rochester, Minnesota.
Leo G. Christian, Vice-Chief of Staff, St. Lawrence Hospital, Lansing, Michigan.
Thomas P. Murdock, Chief of Staff, Meriden Hospital, Meriden, Connecticut.

4:00 p.m. Discussion Period.

Following is the program presented before the National Conference on Rural Health sponsored by the American Medical Association in the Palmer House, Chicago, February 7 and 8, 1947:

10:00—10:15 a.m. "The Farmer and the Medical Service Program," Albert S. Goss, Master, The National Grange, Washington, D. C.

10:15—10:55 a.m. "Methods of Bringing and Holding Doctors in Rural Areas," Fred A. Humphrey, M.D., Chairman, Colorado Committee on Rural Medical Service, Fort Collins; H. E. Slusher, President, Missouri Farm Bureau Federation, Jefferson City.

10:55—11:35 a.m. "Hospital Facilities and Health Centers for Rural Areas," Mrs. Roy C. Weagly, President, The Associated Women of the American Farm Bureau Federation, Hagerstown, Maryland; Graham L. Davis, Director, Division of Hospitals, W. K. Kellogg Foundation, Battle Creek, Michigan, Member Federal Hospital Council; Joseph W. Fichter, Master, Ohio State Grange, Columbus; Robin C. Buerki, M.D., Dean, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Member Federal Hospital Council.

11:45—12:30 a.m. "Voluntary Medical Prepayment Plans As They Apply to Rural Communities," Mrs. Gladys T. Edwards, Director of Education, Farmers Educational and Cooperative Union of America, Denver, Colorado; James R. McVay, M.D., Vice Chairman, Council on Medical Service, American Medical Association, Kansas City, Missouri; J. S. Jones, Secretary, Minnesota Farm Bureau Federation, St. Paul.

A.M.A. Headquarters, Friday Afternoon Round Table Discussions

2:00—5:00 p.m.

1. "Hospital Facilities and Health Centers," Allen T. Stewart, M.D., Chairman; Mrs. Roy C. Weagly, Co-Chairman.
2. "Methods of Bringing and Holding Physicians and Dentists in Rural Areas," J. S. Jones, Chairman; H. B. Mulholland, M.D., Co-Chairman.
3. "Voluntary Medical Prepayment Plans,"

James F. Doughty, M.D., Chairman; Mrs. Paul Palmer, Co-Chairman.

4. "Nursing Needs of Rural Communities," Mrs. Chas. W. Sewell, Chairman; Chas. W. Holman, Co-Chairman.
5, "Health Council As Agency for Promoting Rural Health," J. Paul Jones, M.D., Chairman; Joseph W. Fichter, Co-Chairman.
6. "Medical Care for Lower Income Groups," Ransom E. Aldrich, Chairman; Mrs. Gladys T. Edwards, Co-Chairman.

Palmer House, Red Lacquer Room,
Saturday Morning

9:30 a.m. Reports of Round Table Committees and Discussion.

1:00 p.m. Luncheon.

Speakers: Honorable J. Melville Broughton, Raleigh, North Carolina; Harrison Shoulders, M.D., President, American Medical Association; Olin West, M.D., President-elect, American Medical Association.

THE FARMER AND THE MEDICAL SERVICE PROGRAM*

ALBERT S. GOSS
Master of the National Grange

I am quite conscious of the fact that doctors do not like figures,—or should I say arithmetic. However, I do not know how to talk about "the farmer and the medical service program" without figures, so let's take the bad medicine first and get it over with. First let us look at the farmers' ability to pay doctors' bills under normal conditions. During the 10-year period 1921-30 the farmers' net income as compared with non-farm income was $200 per capita as compared to $800 per capita. During 1931-40 it was $150 to $580. During 1945, which can hardly be considered a normal year, it was $740 to $1260. You may raise the objection that the farmer has had free house rent and free food, but that is not true, for those items have been calculated and added to his cash income to obtain the income as I have given it.

Thus we can see that the average farmer's ability to pay for adequate medical service is substantially lower than non-farmers.

Next let us look at it from another situation. On the average, farmers live a substantial distance from cities or towns where medical and hospital service is available. They cannot help that. The vocation of raising the food the nation needs requires some of us,—lots of us, to live way off from "main street." Before the war in our 1,000 most rural counties there was only one medical doctor for every 1,700 people. In our big cities there was one doctor for every 650 people. In most rural communities there are less than 2.0 hospital beds per 1,000 people. In fact 1,200 of our rural counties have no recognized hospital within their borders and these counties have a total population of 15 million people. Hospital workers tell us that we should have 3.5 or 4.0 hospital beds per 1,000 rural people.

The shortage of doctors in rural communities is partly due to the fact that doctors like to live and practice where adequate facilities are available. It is partly because doctors do not like the inconveniences and hardships of country practice. It is partly due to income discrepancies such as I first discussed with resulting lower income for the doctors. No doubt there are many other causes.

Now let us look at the accident rate among farmers and those employed in industry. The accident death rate per 100,000 workers on farms during 1945 was 53; as compared with 19 in manufacturing industries. When it comes to less serious accidents, but those still requiring medical care, farm experience will show that most farm workers have one or more such accidents every year. Even the farm children are exposed to innumerable hazards. In considering farm accidents we must not forget that the farmer who suffers an accident is usually far from a doctor or a hospital while most industrial plants have medical service and hospitalization facilities on the premises.

Now let us look at some of the results. Farmers live in the open country, get plenty of exercise, and should get plenty of good food. For generations we have believed that our strongest and healthiest boys came from the farm. Figures released by the Military Service during the late war have awakened us with a rude shock. We found that the farm boy was not nearly so fit physically as the city boy. It was found in 1943 when 18 and 19 year olds were being drafted that for the country as a whole, 25 out of every 100 were rejected whereas for farm boys alone, 41.1 boys per one hundred were rejected. In addition infant and maternal mortality rates are 25 to 30 per cent higher in rural communities than in urban.

Thus we see that the high cost of adequate medical care relative to farm income and the lack of modern medical facilities in rural areas adds up to a real problem. When we add to this problem the abuses of overcharge and unethical practices that some doctors are guilty of, and which most of us have been the victims of, it adds up to an overwhelming demand for better medical service.

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*Presented before the National Conference on Rural Health, Chicago, Febr. 7, 1947.

We appreciate the need for maintaining high standards in the medical profession, but the fact remains that over a vast section of America the cost of medical service has increased enormously and the availability of service has become poorer and poorer. Whether rightly or wrongly, we believe it is a simple statement of fact that the feeling has become more and more general that the Medical Associations, instead of devoting their chief efforts to the improvement of medical standards, have been more interested in eliminating competition in the medical field. Certain it is that medical service is not only much more costly, but much more difficult to secure, and rural America is rapidly getting up in arms over the inadequate service.

And so we have a very definite problem. It seems to us that the doctors ought to have many constructive suggestions. By and large the answers furnished so far by the medical profession have been negative in character. We think the doctors should join in some practical positive action. We do not know what the answer is but we know that present conditions are not satisfactory.

More and more people are turning to cooperative medicine. It has many advantages, not the least of which is adequacy. It is preventive in character. It is more economical and does not require that farmers be classified as paupers in order to secure adequate service at prices they can afford. It combines the advantages of the specialization of group practice with the efficient use of personnel and facilities. However, in many sections, we have faced a storm of resistance on the part of the medical profession against every effort to organize cooperatively to improve conditions, although happily this seems to be diminishing.

In this new field of cooperative effort there are many difficulties to overcome and generally speaking the best efforts that many communities have been able to put forth have not proved adequate.

Clearly, it seems to us that the situation is one demanding the best cooperative efforts of physicians and farm groups in working out a practical solution. We do not want to leave the impression that the physicians are solely responsible for an unsatisfactory situation. The health service, the schools, and the farm organizations all have their responsibilities. The point we have tried to emphasize is that we have been trying to meet the situation by the cooperative medicine route, but have not had much help; in fact have met a good deal of resistance. If there is a better way, let's have it. If not, let's all join to meet the growing need cooperatively.

I think I would be remiss if I did not comment on the situation as I see it today. With the inadequacies of the service, and the resistance against change, it is not surprising that more and more farmers are turning toward Government help and State control of medicine, including compulsory insurance.

My organization does not believe in State control of medicine; we believe there should be a better way. Nevertheless, we believe in adequate medical and hospital services, and if it cannot be found in some other way, I am very sure that the farmers will turn more and more to State control.

We feel that this is a joint problem. We do not believe the medical profession can ignore the needs of those whose occupation require that they live in the open country. Some way adequate medical service must be provided. If it cannot be provided any other way, I am also confident that eventually farmers will seek State medicine. I am also confident that if the State once starts to furnish medical service for a portion of our population, it will spread to the cities and we will have a dual medical service system.

Summing up, there is a real problem which must be met if we are to avoid Stateism in medicine. I feel that the medical profession must realize the necessity of furnishing adequate service and must join with others in providing a positive program which will bring results if we are to avoid State control.

COUNCIL ON MEDICAL SERVICE, A.M.A.

1947 —YEAR OF ACCOMPLISHMENT

Great tasks lie ahead for medical organizations in 1947.

1945 Was the Year of Decision.
1946 Was the Year of Planning.
1947 Is the Year of Accomplishment.

A positive approach and hard work will bring results. Here are some of the problems, programs and prospects that medical organizations throughout the country will face during the coming year.

NEW NATIONAL LEGISLATION

Taft-Smith-Ball Bill: Rewritten. Has been introduced—suggestions in regard to changes in the original bill introduced in the last session of Congress have been made by several state medical societies—these have been submitted to the authors. It is understood that suggestions also have been received from dentists and hospital organizations. Some of the provisions in the new bill by the medical, hospital and dental groups are:

1. A new agency for administration of this legislation separate from the U. S. Public Health Service and the Federal Security Agency.

2. A "grass-roots" doctor to assist the administrator together with an advisory council predominately professional; both administrator and council to be appointed by the President.

3. The entire program to be based on plans submitted by states with a means test to be administered at the state level.

Reintroduction of Compulsory Insurance Legislation: President Truman has asked the New Congress to enact "a National Health Program" as presented a year ago. This would seem to reaffirm his position for compulsory sickness insurance. He also recommended the establishment of a Department of Welfare to include the fields of health, education and welfare.

VOLUNTARY PREPAYMENT MEDICAL CARE PLANS GROW

Planning stage in most states is past—sound programs have been established enrolling almost five millions. Growth should be maintained for 1947 at the same rate as for 1946. This is going to take work—hard work; coordinated effort and correlation of programs.

HILL-BURTON DEVELOPMENT

Legislation passed and planning nearly completed in 1946. Activities now go forward along the lines of procedure submitted by Council on Medical Service and Council on Medical Education and Hospitals and approved by House of Delegates.

PUBLIC RELATIONS PROGRAMS GET UNDER WAY

Public Relations programs were established in many states during the past year. To facilitate the work a number of state societies have established full time public relations departments. Each society is urged to develop this field of activity. Available information concerning definite P. R. programs may be obtained from the following:

G. H. Saville, Ohio State Medical Association, 79 East State Street, Columbus.

Jack Meadors, South Carolina Medical Association, 105 West Chevs Street, Florence.

James G. Burch, Connecticut State Medical Society, 258 Church Street, New Haven.

Dwight Anderson, Medical Society of the state of New York, 292 Madison Avenue, New York.

Hugh Brenneman, Michigan State Medical Society, 2020 Olds Towers, Lansing.

Henry S. Johnson, Medical Society of Virginia, 1200 East Clay Street, Richmond.

Frank Lais, Jr., Louisiana State Medical Society, 1430 Tulane Avenue, New Orleans.

STATE HEALTH COUNCILS MULTIPLY

Nineteen states have state health councils. The type of the health councils vary from formal organizations with constitution, by-laws and officers, to loosely knit informal groups meeting only when called. These councils are becoming important factors. Here's what M. S. Davie, M.D., chairman of The Health and Medical Care Council of Alabama, writes in regard to the objectives of that Council which was formed largely as a result of the inspiration of J. Paul Jones, M.D., of Alabama, who is a member of the Rural Medical Service Committee of the American Medical Association: "Each time I read the Constitution of The Health and Medical Care Council of Alabama I am impressed with the language of inclusiveness. It would appear that no one who cares to render service in the realm of human welfare should be denied membership and activity in this organization. The Constitution says that this is 'an overall organization . . . in the broad subject of health and medical care in Alabama.' Inasmuch as civilization itself is rooted in health, it is recognized as the imperative of progress and survival. Scientists aver that an open mind is a human impossibility and William James observes that facts are there only for those who have a mental affinity with them. Yet, it is a fair assumption that mental affinities are the fruition of mental disciplines which are primarily grouped in health. So our task and responsibility would seem to be the organization of all the counties in Alabama and to have each unit so organized attack the problems of health and medical care in every practical manner. For example, the Postwar Planning Commission of the Alabama State Medical Association has construed that the Hill-Burton Bill, which is a hospital construction bill, is the prologue of medical care in the United States. Heretofore the handicap to the progress of medical care has been the lack of hospital facilities. Meanwhile, the physicians who are completing their training and seeking locations for practice, are declining the consideration of places where they cannot have open hospital facilities. The war, particularly, has educated the people as to the resources of modern medical care and they are rightly demanding that the same be made available to them. This requires hospitals and they insist that they have them now."

SCHOOLS FOR SPEAKERS

Several years ago the House of Delegates passed a resolution authorizing the creation of a speakers' bureau. Further recognition was given this subject by the House of Delegates at the meeting last December when the recommendation for a school for speakers was adopted. Watch for further announcement.

CHILD HEALTH SURVEY

The American Academy of Pediatrics is completing a nation-wide survey of child health services. The Academy has received the cooperation of various state societies in making the study and the subject was brought to the attention of the House of Delegates at its most recent meeting. The House of Delegates recognized the problem in its adoption of principles for the establishment of health centers under the Hill-Burton legislation by stating that "child health centers may be considered a necessary part of the services of a health center." The Monmouth County (New Jersey) Organization for Social Service has developed a child health center program through the coordinated efforts of the community agencies and county medical society. It is possible that this may be considered as a survey area for the development of a coordinated system of pre-natal and child health services.

HEALTH COOPERATIVE MOVEMENT

All states, particularly those in the Mid-West, should keep posted on the development of the health cooperative movement. At Two Harbors, Minn., this past year the Cooperative Health Federation of American was formed. This organization is composed of consumer cooperative plans as contrasted with medical society sponsored prepayment plans.

The Cooperative Health Federation of America reached decisions in its recent St. Louis meeting to promote cooperative medical care for labor and rural groups with Harry Becker of Washington, D. C., and George Jacobson of St. Paul, Minn., as chairmen. Mr. Jacobson is to establish offices for the rural groups in St. Louis, Mo.

Six regional offices to carry out promotional and educational programs and foster legislative actions in the states are to be set up. Wisconsin co-ops meeting in Madison "urged their state association to carry the fight into the legislature to remove legal barriers to the organization of cooperative medical services and hospitals."

Some consumer-sponsored plans are seeking the advice of local physicians. This may provide an opportunity to seek ways and means for fitting these plans into community medical care activities on a basis compatible with the principles of organized medicine.

NAVY SURVEY OF BITUMINOUS COAL MINES

Release of this Navy Survey may be expected at any moment now. Significance of the agreement between the government and the United Mine Workers of America which places health and medical services under union control is becoming increasingly apparent. The Health Fund itself is to be created by check off from miners' pay and will presumably be administered by the union. The Welfare and Retirement Fund obtained from a 5 cent impost on each ton of coal mined, will be administered by a board of three persons. One is to be selected by the operators, one by the miners, and one chosen jointly. Indications are that labor in other fields may follow the pattern set by the U. M. W.

COOPERATION WITH CANCER, TUBERCULOSIS, INFANTILE PARALYSIS ORGANIZATIONS AND OTHER GROUPS

The Ten Point Program calls for such cooperation. The House of Delegates at the December meeting approved the "established regulations for the control of information services, detection centers, service programs and diagnostic and treatment clinics as set forth by the professional advisory committee of the American Cancer Society."

TEN POINT PROGRAM

In developing the Ten Point Program it is the intent of the medical profession to extend to each individual the advantages of better health and thereby preserve individual integrity and personal security so necessary for the continuance of American Democracy.

WOMAN'S AUXILIARY

In most states the Woman's Auxiliary is active and is doing a commendable job of civic and community welfare. The Woman's Auxiliaries throughout the country can do much to make 1947 a year of accomplishment. Here are some important subjects for their consideration:

Ten Point Program
Child Health
Rural Health Problems
Supplying Schools with Compulsory Sickness Insurance Debate Material,
and many others.

DRIVE OF CULTISTS FOR RECOGNITION

Following World War I through government aid many service men enrolled in cult schools. Indications are that a number of states have accredited these cult schools for training of returned veterans of World War II. This will mean that numbers of cultists will be turned out and will seek recognition from state legislatures to practice the healing art despite sub-standard educational qualifications. Several states report that these groups already have approached their legislators asking for special professional recognition, and being veterans, their appeal has special emotional flare.

GRASS ROOTS MEETING AT ATLANTIC CITY

A national conference of officers of county medical societies just preceding the annual session of the House of Delegates of the American Medical Association will be one of the outstanding new developments at each annual session. Here's an opportunity for "grass roots" ideas on such important matters as voluntary health insurance plans, hospitalization, construction of new hospitals in needed areas, improvement in medical facilities, rural health activities, and activities of the various committees and councils of the American Medical Association. Watch for further notices.

ATOMIC ENERGY—ITS MEDICAL APPLICATION

A problem of extraordinary importance is before the Council on Physical Medicine and the Council on Industrial Health, namely, atomic energy and its medical applications.

At a joint meeting of the two Councils, specialists on roentgen rays, radium and atomic energy discussed a long range program for considering the products, the problems and the ways and means of disseminating information.

The Council on Industrial Health decided to sponsor articles on the dangers associated with the manufacture of radioactive material. The Council on Physical Medicine voted to prepare articles for publication in The Journal of the American Medical Association on the therapeutic and diagnostic uses of radioactive isotopes.

A NEW A.M.A. SERVICE TO THE DOCTOR

The trend in the evaluation of new therapeutic measures is toward more carefully planned and complete research and greater exchange of information. In the past it has not been uncommon for individuals to be forced to conduct their research studies almost alone or, at best, with the aid of a few interested associations and then exchange information infrequently by means of published papers and occasional scientific meetings. Experience during the last war demonstrated the unquestionable value of planning cooperative research and disseminating the proper information as soon as possible. This involves, among other things, a proper appreciation of the cost of research and the need of adequate personnel. Among the expanded activities of the Council on Pharmacy and Chemistry is a project operated by the Therapeutic Trials Committee, a standing committee of the Council, which will be charged with the responsibility of meeting such objectives. Thus the medical profession will have at its command added facilities for supplying it with information quickly and accurately. This, however, is only part of the Council's work and represents only a section of its expanded activities.

BULLETIN NO. 1

With this bulletin we begin our reports on the doings of the Eightieth Congress. As in previous years we shall not restrict ourselves to any particular regularity in producing our numbers, but will report promptly when we have information that would be helpful to you. The introduction of all bills relating to medical service and to public health will be promptly reported, and you will be kept informed as to their progress and the results of hearings or conferences that may be held upon them.

There are likely to be many health bills come before this Congress; the bills of last year will be reintroduced, probably more or less modified, and new ones embodying campaign promises are certain to be drafted.

Senators Taft, Smith and Ball conferred with a committee of the AMA on December 27 in Washington on redrafting their bill of last year (S. 2143). It is our understanding that the new bill will have the following features: (1) A separate government agency for its administration, outside Federal Security or Public Health Service; (2) administered by a physician, to be appointed by the President, preferably from men in private practice; (3) Advisory Committee with more than advisory powers, also to be appointed by the President; (4) Means test to be applied on State level; and (5) the administration to be on State level, according to plans formulated by the separate states. An appropriation of $200,000,000 will be made available to be apportioned among the states according to a formula similar to that contained in the hospital construction law. The bill will be introduced in the Senate as soon as it can be drafted. (The bill has been introduced.—Ed.)

NEW BILLS INTRODUCED

S. 57 by Mr. Langer of North Dakota, January 6. Old Age Security (Townsend Bill). Referred to the Committee on Finance.

H.R. 16 by Mr. Angell of Oregon, January 3. Old Age Security (Townsend Bill). Identical to S. 57. Referred to the Committee on Ways and Means.

CANCER EXPERTS

H.R. 100 by Mr. Dirksen of Illinois, January 3. A Bill to authorize and request the President to undertake to mobilize at some convenient place in the United States an adequate number of the world's outstanding experts, and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Foreign Affairs.

H.R. 292 by Mr. Rooney of New York, January 6. A Bill to authorize and request the President to undertake to mobilize at some convenient place in the United States an adequate number of the world's outstanding experts, and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Foreign Affairs.

WATER POLLUTION

H.R. 123 by Mr. Mundt of South Dakota, January 3. A Bill to provide for water-pollution-control activities in the United States Public Health Service, and for other purposes. Referred to the Committee on Public Works.

H.R. 315 by Mr. Spence of Kentucky, January 6. A Bill to provide for water-pollution-control activities in the United States Public Health Service, and for other purposes. Referred to the Committee on Public Works.

H.R. 470 by Mr. Elston of Ohio, January 6. A Bill to provide for water-pollution-control activities in the United States Public Health Service, and for other purposes. Referred to the Committee on Public Works.

H.R. 220 by Mr. Buchanan of Pennsylvania, January 6. A Bill to establish a United States Commission for the Promotion of Physical Fitness and making an appropriation for such commission. Referred to the Committee on Education and Labor.

H.R. 462 by Mr. Lemke of North Dakota, January 6. A Bill to prohibit experiments upon living dogs in the District of Columbia and providing a penalty for violation thereof. Referred to the Committee on the District of Columbia.

H.R. 153 by Mr. Walter of Pennsylvania, January 3. A Bill to establish uniform procedure relative to the proof of age, place of birth, or of death. Referred to the Committee on the Judiciary.

H.R. 487 by Mrs. Rogers of Massachusetts, January 6. A Bill to amend section 6 of the Act of March 20, 1933, to prohibit the requirement of the taking of the so-called pauper's oath by certain applicants for hospital treatment or domiciliary care. Referred to the Committee on Veterans' Affairs.

EXECUTIVE DEPARTMENT OF HEALTH WITH CABINET RATING

H.R. 573 by Mr. Harris of Arkansas, January 7. A Bill to create an executive department of the Government to be known as the Department of Health, Education, and Security. Referred to Committee on Expenditures in the Executive Departments.

H.R. 605 by Dr. Miller of Nebraska, January 7. A Bill to establish a Department of National Health, and for other purposes. Referred to the Committee on Expenditures in the Executive Departments.

Comment: Same as H.R. 1391 which Dr. Miller introduced in the 79th Congres.

H.R. 574 by Mr. Harris of Arkansas, January 7. A Bill to provide for, foster, and aid in coordinating research relating to dental diseases and conditions; to establish the National Institute of Dental Research, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

H.R. 588 by Mrs. Rogers of Massachusetts, January 7. A Bill to provide for the coverage of barbiturates under the Federal narcotic laws. Referred to the Committee on Ways and Means.

H.R. 592 by Mr. Cravens of Arkansas, January 7. A Bill to amend the act entitled "An act to provide for the general welfare by establishing a system of Federal old-age benefits, and by enabling the several States to make more adequate provision for aged persons, blind persons, dependent and crippled children, maternal and child welfare, public health, and the administration of their unemployment compensation laws; to establish a Social Security Board; to raise revenues; and for other purposes;" approved August 14, 1935, as amended. Referred to the Committee on Ways and Means.

In addition, there were eight bills introduced almost identical in their demands that "***work stoppages in industries vital to the public health or safety be prevented***."

BULLETIN NO. 2

NEW BILLS INTRODUCED

S. 93 by Mr. Pepper of Florida, January 8. A Bill to authorize and request the President to undertake to mobilize at some convenient place or places in the United States an adequate number of the world's outstanding experts and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Labor and Public Welfare.

Comment: There are three other similar bills (H.R. 100, H.R. 292, H.R. 780). All authorize an appropriation of $100,000,000 except H.R. 100 which mentions $50,000,000. S. 93 authorizes the President to administer the law through the United States Public Health Service or an independent group appointed by him while the other three do not mention the U.S.P.H.S.

S. 131 by Mr. Aiken of Vermont, January 10. A Bill to safeguard the health, efficiency, and morale of the American people; to provide for improved nutrition through a more effective distribution of food supplies through a food-allotment program; to assist in maintaining fair prices and incomes to farmers by providing adequate outlets for agricultural products; to prevent burdening and obstructing channels of interstate commerce; to promote the full use of agricultural resources and for other purposes. Referred to the Committee on Labor and Public Welfare.

Comment: Authorizes Secretary of Agriculture to issue "food allotment coupons" to individuals or households under certain conditions of income and employment. States the amount and character of food to be allotted per individual per week. States formulae for arriving at value of allotment coupons for both consumer and retailer.

S. 176 by Mr. Murray of Montana (for himself, Mr. Pepper of Florida, Mr. Taft of Ohio, Mr. Aiken of Vermont, and Mr. Morse of Oregon), January 13. A Bill to provide for, foster, and aid in coordinating research relating to dental diseases and conditions; to establish the National Institute of Dental Research; and for other purposes. Referred to the Committee on Labor and Public Welfare.

Comment: Similar to S. 190 of 79th Congress.

S. 178 by Mr. Pepper of Florida (for himself, Mr. Murray of Montana, and Mr. Aiken of Vermont), January 13. A Bill to amend the Public Health Service Act so as to provide assistance to States in developing and maintaining dental health programs, and for other purposes.

Comment: Similar to S. 1099, H.R. 3412 and H.R. 3414 of the 79th Congress.

H.R. 780 by Mrs. Douglas of California, January 10. A Bill to authorize and request the President to undertake to mobilize at some convenient place in the United States an adequate number of the world's outstanding experts, and coordinate and utilize their services in a supreme endeavor to discover means of curing and preventing cancer. Referred to the Committee on Foreign Affairs,

See comment on S. 93 above.

H.R. 942 by Mr. Celler of New York, January 14. A Bill to promote the progress of science and the useful arts, to secure the national defense, to advance the national health and welfare, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Identical with S. 1850 and H.R. 6672 of the 79th Congress. Would establish an independent agency to be known as the National Science Foundation administered by an appointee of the President and a Deputy selected by the Administrator. Administrator is to advise and consult with directors of of several divisions and National Science Board of nine members appointed by the President. There shall be the following Divisions: (1) Mathematical and Physical Sciences, (2) Biological Sciences, (3) Social Sciences, (4) Health and Medical Sciences, (5) National Defense, (6) Engineering and Technology, (7) Scientific Personnel and Education, and (8) Publications and Information. Each Division except National Defense, shall have a scientific committee of not less than five or more than fifteen members appointed by the Administrator. The Administrator shall render an annual report to the President and the Congress. Provision is made for appropriating annually to the Foundation such sums as may be necessary to carry out the provisions of the Act.

H.R. 977 by Mr. Stevenson of Wisconsin, January 14. A Bill to provide for the mobilization of the scientific resources and knowledge of the United States for the purpose of seeking the causes and cure of cancer, poliomyelitis, and certain other degenerative diseases of mankind. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Creates independent agency to be known as the National Medical Research Foundation authorized to "initiate, conduct and support scientific research with respect to the cause and cure of cancer, poliomyelitis, rheumatic fever, Bright's disease, asthma, arthritis, leukemia, encephalitis, arteriosclerosis, aplastic anemia, rheumatic heart disease, diabetes and other degenerative diseases of the human race."

It is to be administered by a board composed of four members: The Surgeon General of U.S.P.H.S., a representative of the A.M.A., a representative of the American Heart Association and a representative of the American Cancer Society. The Board shall appoint a Director of the Foundation. An annual appropriation of ten million dollars is authorized. Almost identical to H.R. 5715 of the 79th Congress.

BULLETIN NO. 3

NEW BILLS INTRODUCED

S. 199 by Mr. Aiken of Vermont, January 15, 1947. A Bill to authorize the appropriation of funds to assist the States in more nearly equalizing educational opportunities among and within the States by establishing a national floor under current educational expenditures per pupil in average daily attendance at public elementary and secondary schools and by assistance to nonpublic tax-empt schools of secondary grade or less for necessary transportation of pupils, school health examinations and related school health services, and purchase of nonreligious instructional supplies and equipment, including books. Referred to the Committee on Labor and Public Welfare.

Comment: "It shall be the national policy to provide for the greater equalization of educational opportunities among and within the States and Territories (a) by the establishment of a national floor under current educational expenditures per pupil in average daily attendance at all public elementary and secondary schools and (b) by the payment of not to exceed 60 per centum of the cost of providing necessary transportation of pupils, school health examinations and related school health services, and purchase of nonreligious instructional supplies and equipment, including books for pupils attending nonpublic, tax-exempt elementary and secondary schools."

An appropriation is authorized for the fiscal year ending June 30, 1948 of $400,000,000 or $20 per pupil in average daily attendance at such schools during 1946, whichever is greater. The amount appropriated will increase annually for five years. For the fiscal year ending June 30, 1952, and each fiscal year thereafter, the amount will be $1,200,000,000 or $60 per pupil in average daily attendance at such schools during the second fiscal year next preceding, whichever is greater.

The United States Commissioner of Education, under the supervision of the Administrator, Federal Security Agency, shall be responsible for the administration of the Act but "No department, agency, officer, or employee of the United States shall exercise any direction, supervision, or control over the personnel, curriculum, or program, of instruction of any school or school system to which funds have been allotted or paid under this Act." Included schools are to be reimbursed for not to exceed 60 per cent of their actual expenses incurred in providing "(a)*** (b) school health examinations and related school health services, and (c)***."

"The term 'related school health services' means services of physicians, dental hygienists, nurses, nutritionists, and similar health-service personnel employed by the school authorities to provide preventative and diagnostic health services, other than actual medical, surgical, or reparative dental treatment."

S. 322 by Mr. Gurney of South Dakota, January 22. A Bill to reorganize the Nurse Corps of the Navy and of the Naval Reserve. Referred to the Committee on Armed Services.

Comment: The bill would reorganize the Nurse Corps and establish it as a staff corps of the United States Navy whose officers shall have authority in medical and sanitary matters and all other work within the line of their professional duties in and about naval hospitals and other activities of the Medical Department next after the officers of the Medical Corps and the Dental Corps of the Navy.

S. 326 by Mr. Pepper of Florida, January 22. A Bill to amend the Servicemen's Readjustment Act of 1944, with respect to the education and training of veterans. Referred to the Committee on Labor and Public Welfare.

Comment: "Any eligible person who has pursued a preprofessional or professional course during the periods of education or training to which he is entitled under the foregoing provisions of this paragraph and has satisfactorily completed his work during such periods in such course, shall be entitled to such further additional period or periods of education or training as may be necessary to enable him to complete his preprofessional and professional courses, but in no event shall the total period of education or training to which any person is entitled under this part exceed nine years."

S. 334 by Mr. Gurney of South Dakota, January 24. A Bill to establish the Medical Associated Sciences Corps in the Medical Department of the Navy, and for other purposes. Referred to the Committee on Armed Services.

Comment: The bill originates with the Navy, and will immediately affect 205 physiologists, biologists, bacteriologists, zoologists, biochemists, etc. All have the degree of Ph.D. or an equivalent.

S. Res. 61 by Mr. Morse of Oregon, January 17. Referred to the Committe on Labor and Public Welfare.

Comment: Authorizes and directs that a subcommittee of the Senate Committee on Labor and Public Welfare make a study and investigation of Federal grants to State and local governments for welfare, education and health programs, "with special emphasis upon the need for such improved legislative and administrative policies as will more effectively meet the needs for which such grants have been or may be authorized, eliminate duplication and inconsistencies, promote economy and efficiency, clarify the relationship between the Federal Government and States and local governments, help solve the problem of the development of underdeveloped regions, and contribute to the development and maintenance of sound fiscal policy."

H. J. Res. 15 by Dr. Judd of Minnesota, January 3. Joint Resolution designating the week of February 14 in each year as National Heart Week. Referred to the Committee on the Judicary.

S. J. Res. 35 by Mr. Bridges of New Hampshire, January 20. Referred to the Committee on the Judiciary.

Comment: Identical with Dr. Judd's H. J. Res. 15.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

January 31, 1947

Cash on hand January 1, 1947		$44,778.67
Receipts:		
From dues	$17,279.50	
From enrollment fees paid	420.00	
Taxes deducted from salaries	4.30	
Interest on U. S. Bonds	62.50	17,766.30
		$62,544.97
Disbursements:		
Claims paid	$ 9,206.00	
Administrative expense	2,429.10	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Medical Adviser	50.00	
Attorney	50.00	
Advertising	35.82	
Printing and stationery	172.01	
Ben W. Braasch	2.11	
R. L. Polk and Company	8.00	
Hospital reports	6.00	
Home office travel and expense	109.00	
Dues	13.75	
Postage	44.10	
Taxes paid	17.40	
Collection expense	2.33	
Exchange	.50	
Refunds	76.75	12,397.87
Cash on hand, January 31, 1947		$50,147.10
Bank Balance, January 31, 1947:		
Packers National Bank, Omaha		$49,169.75
First National Bank, Omaha		977.35
		$50,147.10

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

January 31, 1947

Assets:			
Cash in bank		$50,147.10	
Premiums in process of collection		4,334.78	
U. S. Bonds (cost plus accrued interest)		25,151.05	79.632.93
Liabilities:			
Accounts payable, Blue Cross		$ 2,771.10	
Accounts payable, monthly invoices		948.11	
Accrued payroll taxes		5.80	
Claims payable		4,060.00	
Accrued audit, expense		1,300.00	
Unearned premiums		23,982.53	
		$33,067.54	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	27,115.39		
		46,565.39	
			$79.632.93

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

January 31, 1947

	Jan., 1947	
Income:		
From dues	$14,975.01	
From enrollment fees	420.00	15,395.01
Expense:		
Claims	$10,866.00	
Administrative expense	2,771.10	
Salary, Executive Director	150.00	
Secretarys' fees	25.00	
Medical Adviser	50.00	
Legal	50.00	
Auditing	100.00	
Advertising	329.77	
Printing	650.16	
Home office travel and expense	70.00	
Dues	13.75	

Postage	44.10	
Taxes and licenses	1.50	
Collection expense	2.33	
Miscellaneous	4.50	15,128.21
Net Gain	$	266.80

MEMBERSHIP SUMMARY—JANUARY, 1947

		Subscribers	Dependents	Total
1.	Membership, January 1, 1947	8,934	12,606	21,540
	Additions	810	1,269	2,079
	Cancellations	214	264	478
	Membership, February 1, 1947	9,530	13,611	23,141
2.	Number of groups now enrolled			593
3.	Number of groups added during January			20
4.	Members enrolled by salesmen:			

M. W. Ashton (outstate)	81
W. F. Doherty (Omaha)	223
O. W. Farrand (Omaha)	107
B. R. Lohnes (Omaha)	30
G. S. Malone (outstate)	108
C. H. Smith (Omaha)	169
Office	92
	810

JANUARY ENROLLMENT BY COMMUNITIES

OMAHA—6 groups, 521 members: American Road & Equipment Co.; Chicago Great Western Railroad; Commercial Credit Corporation; Nebraska Savings & Loan Corp.; Trailmobile Company; Western Printing Company.

HERSHEY—1 group, 9 members: Hershey Extension Club.

HARRISBURG—1 group, 19 members: Big Horn Community.

GRAND ISLAND—1 group, 20 members: U. S. Post Office.

HASTINGS—1 group, 24 members: Ben Sherman, Incorporated.

PLATTSMOUTH—1 group, 3 members: Schreiner Drug Company.

GERING—1 group, 10 members: Hinshaw Lumber Company.

NORTH PLATTE—3 members.

OGALLALA—16 members.

LINCOLN—2 groups, 55 members: City Treasurer's Office; Lancaster County Department of Public Welfare.

BEATRICE—1 group, 27 members: Swift & Company.

DAVID CITY—1 group, 14 members: David City Grain & Motor Co.

NEBRASKA CITY—1 group, 8 members: Joe's New Way Grocery.

SCOTTSBLUFF—1 group, 41 members: Soil Conservation Service.

ALLIANCE—1 group, 3 members: Thelma's Shop.

FALLS CITY—1 group, 23 members: Our Lady of Perpetual Help Hospital.

BENKELMAN—4 members.

FREMONT—6 members.

SUPERIOR—4 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

January 31, 1947

Number of claims paid	194
Number of services rendered	216
Females	104
Males	90
Subscribers	81
Dependents	113

Type of Service	Number	Amt. Paid
Anesthesia	6	$ 60.00
Appendectomies	26	2,600.00
Eye	26	7.00
Gall Bladders	2	300.00
General Surgery	13	600.00
Gynecology	9	810.00
Hemorrhoids	4	155.00
Herniotomies	5	500.00
Minor Surgery	21	135.00
Nose and Throat	8	276.00
Obstetrics	7	420.00
Orthopedics	17	875.00
Pathology	2	65.00
Radiation Therapy	1	25.00
Tonsillectomies	45	1,575.00
Transfusions	2	20.00
Urology	6	300.00
X-rays	29	287.00
Medical	11	196.00
	216	$ 9,206.00

Amount of Claims in process of settlement $4,060.00

BUY U. S. BONDS

DEATHS

Edgar D. Cummins, Lincoln. Born in Nebraska in 1864. Graduated from Omaha Medical College 1889. After graduation he taught anatomy at his Alma Mater. Shortly thereafter he located in Plattsmouth where he became associated with Dr. Theo. P. Livingston. In 1916 he moved to Lincoln where he became chief surgeon for the Lincoln Traction Co., and also chief medical examiner for the Royal Highlanders. Dr. Cummins was a member of the Lancaster County Medical Society. He was active in professional and civic affairs until he retired because of advancing years. He died February 3, 1947. Surviving are his wife and two daughters.

George Allan Byers, North Bend. Born in Canada in 1873. Came to the United States in 1903 when he located at Snyder. He graduated from the University of Western Ontario Medical School, London, in 1903. In 1923 he located in Dodge where he practiced for a year before going to North Bend. Dr. Byers was interested in professional and fraternal affairs, was a member of the Dodge County Medical Society, Nebraska State Medical Association and a Fellow of the American Medical Association. Dr. Byers was a brother of Dr. R. C. Byers of Fremont, and of Dr. Samuel Byers, Alberta, Canada. He died January 19, 1947.

Henry Bruce Landis, Broken Bow. Born in 1874. Graduated from Central Medical College, St. Joseph, Mo., in 1896. The doctor located in Broken Bow in 1911. He was active in the various branches of the Masonic Lodge and was a member of the Broken Bow Rotary Club. He retired from his active practice about two years ago but continued active in the operation of the Landis Drug Store which he owned. Died February 3, 1947, in a Lincoln hospital. Surviving are his widow and a daughter.

John Henry Thomsen, Omaha. Born in Pierce, Nebraska, July 8, 1884. Graduate of Creighton University School of Medicine in 1914, and died January 21, 1947. The doctor moved to Omaha at the age of two years. He founded the Frederick Hospital in 1917, and was a member of this Society since 1924. He is survived by his widow.

Benjamin Miles Deardorff, Clatonia. Born in 1872. Graduated Jefferson Medical College, Missouri, in 1896. Practiced in Clatonia for half a century. Died January 13, 1947. Surviving are his wife, a son and daughter.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

Members of the Adams County Medical Society and its auxiliary met Tuesday evening February 4 for a joint dinner. Following the dinner the doctors listened to addresses by Dr. Earl G. Johnson of Grand Island, president of the Nebraska State Medi-

Auxiliary was given a book review on "The State of the Union."

Dr. Earle Johnson, Grand Island, president of the State Medical Association, addressed members of the **Custer County Medical Society** on Friday evening, January 17 at the Arrow hotel. The program followed a 6:30 dinner served in the banquet room.

Dr. H. I. Stearns, of Cambridge, was elected president of the **Southwest Nebraska Medical Association** at the annual meeting of this organization at the Keystone Hotel, Thursday night, January 30th. Dr. D. H. Morgan of McCook is the outgoing president.

Dr. W. D. Ketter was elected president of the **Richardson County Medical Society** January 22 at a meeting at the Hotel Weaver. He succeeds Dr. H. R. Miner.

Dr. L. V. Brennan, who was elected to the society as a new member, was named vice president. Dr. C. L. Hustead resigned from the office of secretary-treasurer after serving in that capacity for the past 27 years. Dr. William Shepherd was named as his successor. Dr. Miner was appointed delegate to the state convention.

Dr. Brennan gave a paper on "Veterans' Hospital Administration and the Care of Ex-Servicemen."

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Donald E. Wyrens of Scottsbluff has become associated with Dr. Herbert H. Davis of Omaha.

Dr. G. L. Sandritter addressed the Norfolk P.T.A. on "Problems of the Adolescent Age," in January.

Dr. L. W. Elwood, recently of Shelton, has gone to northwestern Minnesota in the government service.

Associated with the Brewster Clinic, Holdrege, is Dr. Donald W. Jones, formerly of Portsmouth, Ohio.

The Annual Sessions of the Nebraska State Medical Association will be held in the Hotel Paxton in Omaha.

Dr. Fay L. Garner, a graduate of the University of Nebraska College of Medicine, has located in Madison.

Dr. Gayle Copsey of Broken Bow, recently released from the Army Medical Corps, has located in Missoula, Mont.

Dr. Donald M. Petersen, formerly of Hampton, has become associated with Dr. Clarence Minnick of Cambridge.

Dr. Frank Conlin of Omaha attended the sessions of the American Diabetic Association held in New York City in January.

Dr. C. M. Foote of Hastings attended the 16th annual midwinter sessions of ophthalmologists in Los Angeles in January.

Dr. James E. Lewis of Scotia has opened his office in the Clark Building. The office was formerly occupied by Dr. A. B. Cimfel.

Dr. Fred Long, Director of Preventable Disease Control in the State Health Department, has gone to Michigan State College where he will work toward a master's degree in public health.

Dr. J. E. M. Thomson of Lincoln addressed the 14th annual meeting of the American Academy of Orthopedic Surgeons in Chicago in January on "Orthopedic Surgery Behind the Iron Curtain."

Dr. J. Hewitt Judd, Omaha, appeared as guest speaker before the Kansas City Society of Otology, Opthalomology and Otolaryngology in December. His paper was on the "Results of Surgery in Glaucoma."

Dr. G. E. Peters of Randolph is retiring president of the Sioux Valley Medical Association. The annual meeting was held January 28-30 in Sioux City. Dr. Walter Benthack of Wayne was elected vice president.

Dr. Vernon K. Anderl, who became associated with Dr. L. J. Ekeler, David City, after his separation from the armed forces, is now taking a four year residency in obstetrics and gynecology at St. Luke's Hospital, Cleveland, Ohio.

Tuberculosis Abstracts

Many family physicians with long experience have entertained more than a mere suspicion that individuals belonging to certain families show relatively little resistance to infection with the tubercle bacillus. Now statistical evidence to support such an observation has begun to accumulate. This is of practical importance to both physicians and health officers since a case of tuberculosis in such a family calls for an intensification of all protective measures if spread of the disease within that family is to be prevented.

SPREAD OF TUBERCULOSIS IN FAMILIES OF TUBERCULOUS PATIENTS

A tabulation of the family records of patients with active tuberculosis under the supervision of the Los Angeles County Health Department has uncovered some surprising facts regarding the susceptibility of the members of certain families to the spread of this disease.

The figures show that nearly all of the new cases originate in a comparatively small proportion of the families exposed. These susceptible families deserve earnest study. Preventive measures within them can be successful only as they are directed toward the major elements of spread. What these elements are is still unknown. A family is a complex unit, exhibiting characteristics, traits, and habits that have been in operation for generations. Even though the faults of these families may not be easily corrected, if they can be defined so as to be recognized, they can be made the object of intensive health supervision. If tuberculosis is to be prevented among them, these families must have larger proportions of the tuberculosis prevention budget than is ordinarily allotted to them.

It is characteristic of tuberculosis in Southern California that it is concentrated in a few comparatively congested areas, inhabited chiefly by families in the low income brackets. Here many conditions favor the spread of disease. In planning surveys and applying special preventive measures, tuberculosis attack rates must be given careful consideration. Local surveys in Los Angeles with a house-to-house canvass in poor neighborhoods have detected five times as much active pulmonary tuberculosis as has been found by the same amount of effort expended in other types of surveys. More information about the reasons for spread in the homes where tuberculosis thrives is urgently needed. In these homes, the wage-earner, all other adults and the older children must be examined.

Crowded living quarters constitute a major fault. In spite of improvement, economic conditions must still be considered a factor, Although thousands of these families have moved to modern housing projects and many have been earning big wages, too often they have reverted to old living habits within the new dwellings. These habits have been gradually molded into characteristics that will require long and painstaking efforts to change.

In 1940, the Los Angeles County Health Department analyzed the family records of all the cases of active reinfection type tuberculosis. All cases found in the family within six months of the time that the first case in the family was diagnosed in the clinic were regarded as original cases. Only those detected thereafter were considered new cases whose infection was presumably due to exposure during the period of observation. Contacts with no active tuberculosis were not included in the tabulations unless they had been under observation six months or longer.

There were 506 families with 595 original cases and 1,637 other persons exposed. There were 135 new active cases developing among these exposed persons, or 8.25 per cent. Of these, four were active nonpulmonary, 45 were active primary and 86 active reinfection type pulmonary tuberculosis. In other words, slightly more than five per cent of the 1,637 contacts developed active reinfection type pulmonary tuberculosis six months or more after the discovery of the first known case in each of the respective families.

This data covers experience during the latter half of the 1931-1940 decade, during the worst years of the depression. Now, four years later, the present active cases have been analyzed, eliminating the families previously tabulated. Unquestionably, there was improvement in the economic status of these families. There was less cause for congestion within the home, and with better living conditions and improved nutrition there should have been less likelihood of the spread of infection. The average number of months of exposure of contacts was also less, because of improvement and extension of the isolation technique. In spite of all this the results show that the justifiable prediction of a lower attack rate would be in error. In 431 families with 1,264 contacts, 60 cases of active reinfection type pulmonary tuberculosis developed among the contacts, or an attack rate of 4.75 per cent. This is very little lower than the rate found in the previous survey.

The hazard in these families with this high attack rate is apparently not only due to the direct spread of the infection, but to other conditions favoring the spread. There must be some inherent fault either in their physical or their mental makeup which makes the members of these families more susceptible than the average person; or there may be contributory domestic habits unchanged by the usual public health education and supervision.

Conditions in other families in similar communities were found to be quite different. The x-ray surveys previously mentioned were carried on in the most congested parts of these same areas, and 22,000 persons examined showed an attack rate of 0.5 per cent. The greater tendency to spread in certain families, in comparison with other families, is demonstrated by the fact that in families having more than one case, even where no positive sputum can be found, there is a high attack rate.

With this high attack rate in certain families, it would seem justifiable to isolate outside of the home every active case occurring in a family with a history of considerable tuberculosis. The effectiveness of such a ruling was shown in a small neighborhood where nine deaths occurred in eighteen months. An arbitrary edict was issued that no active case would be permitted to remain at home in that neighborhood. This stopped the spread and there have been no new cases. In another district, where there were a number of ex-sanatorium, chronic, advanced, communicable cases it was found possible to isolate within the homes with extra assistance. This procedure was found to be effective in stopping the spread of infection. In this type of family isolation is essential. The cases found should not be permitted to remain at home unless considerable material assistance is available and intensive supervision is supplied.

—Spread of Tuberculosis in Families of Tuberculous Patients, P. K. Telford, M.D. and Ruth Garten-White, M.D., American Review of Tuberculosis, March, 1946.

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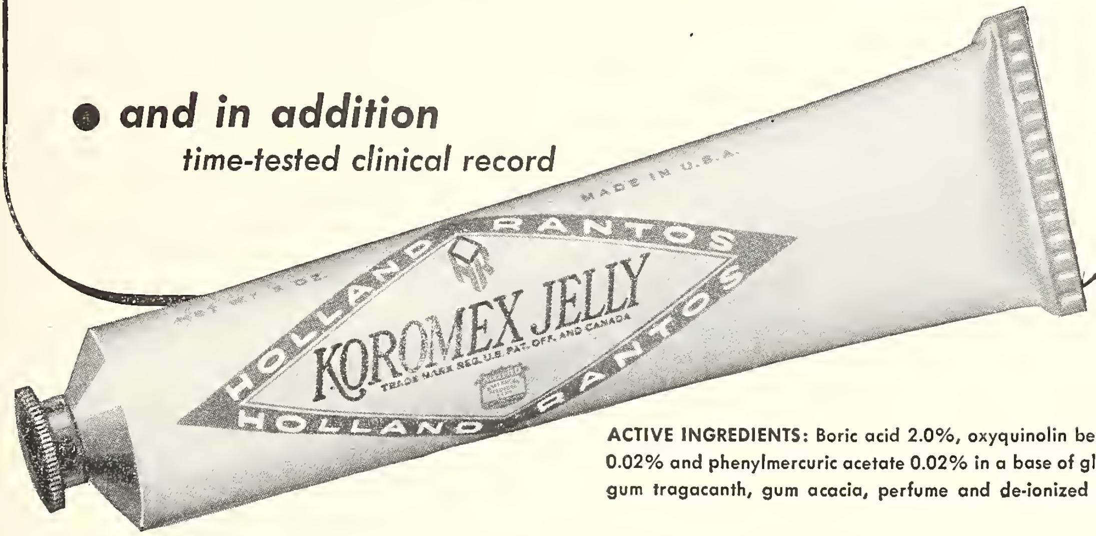

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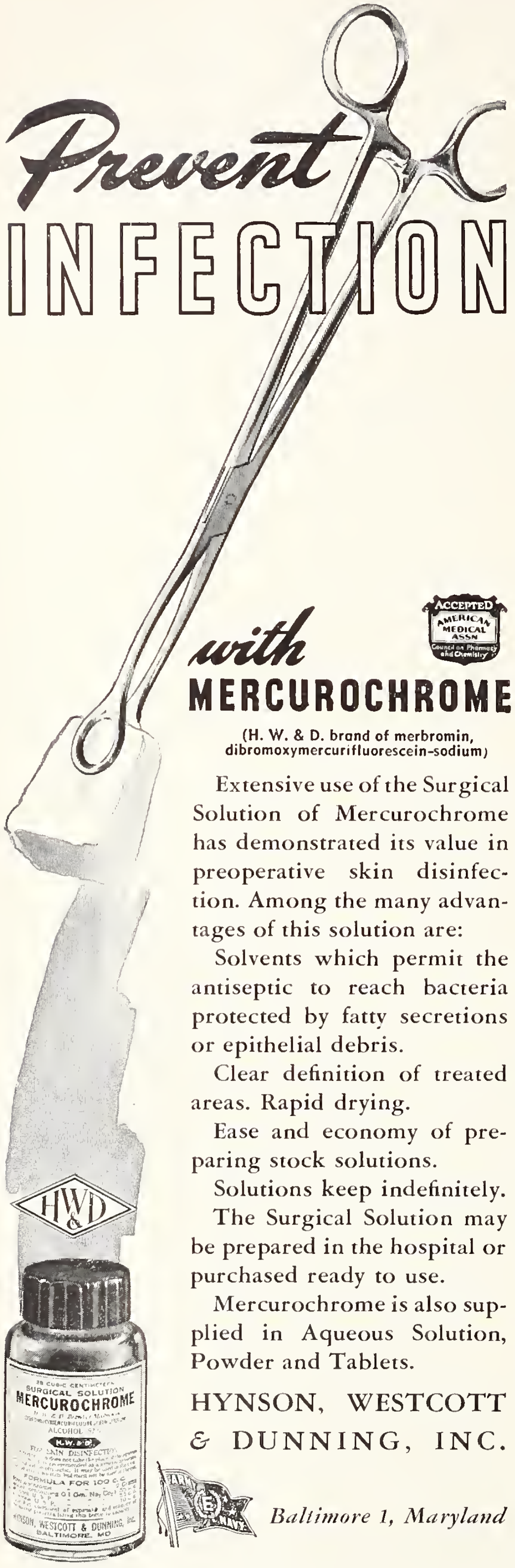

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SPEECH DEFECTS ASSOCIATED WITH CEREBRAL PALSY

Cerebral palsy is a neuromuscular disability caused by maldevelopment of or injury to the motor centers of the brain. In lay terms, it is a condition in which muscular control is impaired or lost. The underlying involvement may be due to faulty development of the brain cells, to injury sustained at birth or later in life, to a tumor of the brain, or to some pathologic change caused by an infectious disease or toxic agent. Most cases of cerebral palsy are caused by injury to the brain during birth.

SYMPTOMATOLOGY

The resulting muscular disability may be severe or mild. There may be rigidity or stiffness present in the form of a fixed tonic spasm, in which case the muscles affected are held in a more or less constant state of contraction, or there may be alternate contraction and relaxation of the muscles. Often there are many involuntary spasms and movements. For instance, in the attempt to use one muscle group wholly extraneous muscles may come into play and cause irrelevant motions. Or the opposing muscle group may go into action and cause the individual to do the opposite of what he had intended.

This lack of muscular control may be confined to one part of the body or it may be general. If the facial muscles are affected, there may be grimaces and drooling—which often lead the person to be classified as mentally defective, in many instances quite undeservedly. There may or may not be mental impairment, depending upon the site and extent of the underlying lesion. (It is extremely difficult to determine the mental capacity of children with cerebral palsy. As practically all such children have been handicapped since birth, they have not had a chance to develop reading, speech and motor skills, upon which most intelligence tests depend. However, results of studies indicate that more than half of these children are of normal or superior intelligence).

Speech and voice may not be disturbed; on the other hand, they may be severely affected. There may be many oral inaccuracies or merely a general indistinctness of speech, or both. The voice may be tremulous, with uncontrolled pitch and inflection, or it may be monotonous with no infection at all. If speech is affected, emotional stress tends to exaggerate the disturbance.

REMEDIAL MEASURES

The damage that has been done to the brain tissue cannot be repaired, but it is possible to retrain the patient in the use and control of the affected muscles. Remedial work should start early. In the case of children it is occasionally delayed because the existence of the condition is not immediately suspected. Frequently it is not until the child reaches a certain developmental stage and begins to have difficulty in mastering motor skills that the parents realize that something is wrong. Among early symptoms which should arouse suspicion are awkward and inexact movements, drooling, and retardation in learning to walk and talk.

The remedial program must be adapted to the individual needs of the patient, since in different cases different muscle groups are affected. If the

(Continued on page xxxvi)

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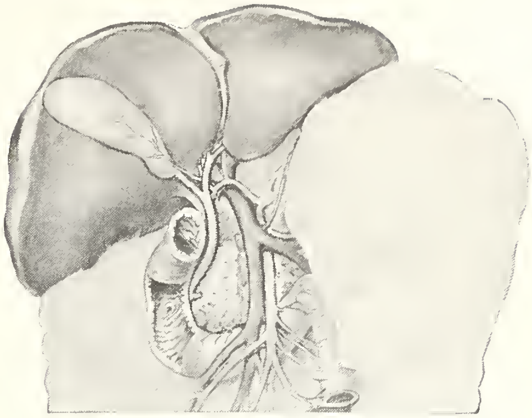

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SPEECH DEFECTS ASSOCIATED WITH CEREBRAL PALSY

(Continued from page xxviii)

disability is characterized by spasticity of the muscles—that is, by rigidity or stiffness—corrective work should begin with measures designed to induce relaxation in the spastic musculature and (in all types of cases) with exercises to promote better control and coordination of the larger muscle groups. These should be followed by exercises for the smaller muscles and, if speech is affected, for the speech musculature specifically.

When some degree of control has been established over the speech musculature, speech drills may be started. These are best begun with exercises for breath control, simple exercises that concentrate on smooth, easy, rhythmic breathing. When the child has mastered these with some degree of success, he should be instructed to vocalize on the expiration, practicing first on one vowel sound and then on the others in turn. Later, consonants may be added to the vowels and practiced in the same way. These exercises should be followed by others of gradually increasing complexity. If the child has particular difficulty with certain sounds, these of course should receive special attention. Practice periods should be fairly brief; it is better to break the work up into two or three short daily periods than to run the risk of tiring the child in one long session. The work should be made interesting enough to stimulate the boy or girl to conscious effort.

At present, few of the children suffering from cerebral palsy receive the remedial work that they need because treatment and training costs are high. Aside from the factor of the cost of training, facilities for this highly specialized type of work are extremely limited. For these reasons, what remedial work the child with cerebral palsy receives must often be given at home. Where parents must themselves undertake the task of training the child, the remedial program should be carried out under the supervision of a physicians.

Mental hygiene should, of course, be an integral part of any therapeutic program for the child with cerebral palsy. As Mrs. Marguerite Fischel, whose book is recommended, has stated: "Besides the patience and ingenuity needed in endless supply for his physical training, one of the greatest essentials is to give such a child ambitional and emotional drive of his own without taxing his already unbalanced nervous system, and to help him to meet and solve his difficulties with courage and balance."—From TALK.

The Nebraska State Medical Journal

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EDITORIAL

THE 79th ANNUAL ASSEMBLY

This month the Nebraska State Medical Association will hold its Annual Sessions in Omaha. As in previous years the Committee has made a conscientious effort to supply an instructive program, of interest to every practicing physician in the State. A copy of this program appears on page 148. From the variety of subjects chosen and the caliber of the speakers to appear on the program, it is difficult to see how any one engaged in the practice of medicine can afford to miss the Assembly.

The symposia scheduled for the afternoon sessions are particularly appealing. They are designed to satisfy the tastes of the general practitioner and specialist alike. The topics represent every day problems of every practitioner and the speakers who are to lead the discussions are certain to bring new concepts and up-to-date developments in their respective fields. They are all outstanding names in medical literature.

We invite special attention to the technical exhibits. New drugs, newly-built equipment, new instruments, produced as a result of war-time needs and experiences will be on display. It is hoped that physicians in attendance will make a special effort to view these displays. They are of great personal value in that they are an integral part of our armentarium. Our attention also stimulates and encourages the personnel in charge of the individual booths. And need we add, the men and women who earn their living by distributing these products deserve our encouragement. Besides, time spent at the technical exhibits breaks the monotony from hours of concentration in the meeting hall.

If we add to these attractions the benefits to be derived from personal exchange of ideas and the opportunity to get away from the daily grind for a change of scenery certainly no progressive physician in Nebraska will want to miss the Annual Assembly.

FELLOWSHIP IN THE AMERICAN MEDICAL ASSOCIATION

Many of our members are planning to attend the Centennial Convention of the American Medical Association in Atlantic City this coming June. According to the analysis by Dr. J. D. McCarthy, in his report on the House of Delegates of the American Medical Association, there is a vast discrepancy between the number of physicians who are members of the Nebraska State Medical Association and those who hold Fellowship in the AMA. We suspect the reason for this discrepancy lies in the fact that many who enjoy membership in the State Association have failed to apply for Fellowship. This may be done by requesting a Fellowship application blank from AMA headquarters at 535 North Dearborn Street, Chicago. This must be filled out and returned to the AMA, together with a subscription for The Journal of the AMA, or some other special publication at the same subscription rate. Fellowship dues are included in the subscription. If you are a subscriber to one of these publications, but are not a Fellow, all that is necessary is to apply for the application blank, fill it out, and return it.

Each year members of state associations are stopped at the registration window of the American Medical Association sessions for lack of Fellowship cards issued by the AMA. Members should realize that only Fellows of the AMA are eligible to register at the Annual Sessions and that only Fellows are permitted to take part in the proceedings of the Association or of any Section of the Association. We recommend that each member of the Nebraska State Medical Association who is not now a Fellow of the AMA write to headquarters and complete his Fellowship.

READ THE MINUTES OF THE MID-WINTER COUNCIL

Comparatively few members are aware of the functions and operations of our Association. Yet each of us has a vital interest in the organization. There are some critics who spasmodically ask "what is the Association for, what does it do except for collecting dues?" Others insist that it is meddling in too many affairs which do not belong to a medical society. Then there are a few who suffer in silence, so to speak, being too bashful, too polite, or perhaps too indifferent, to ask questions or to express opinions on the purposes and activities of organized medicine.

Critical individuals and groups are a part of every organization worthy of a name, and the Nebraska State Medical Association is no exception. In fact, we consider criticism as a welcome sign of interest. We favor it especially when such criticism expresses constructive thought. It is our contention, however, that criticism regardless of the intention or motive of the critic cannot be constructive unless the person has some knowledge of what he is trying to correct.

We suggest that each member, regardless of disposition or attitude, read the minutes of the Council and also the reports of committees. They are interesting and instructive. But what is most important, they reflect the activities of the Association as a whole because they present a comprehensive view of the problems connected not only with the administration of the Association, but problems which directly affect each of us. The minutes as well as the reports of the committees will be up before the House of Delegates for approval. Members should familiarize themselves with the contents of these reports and the attitude of the Association toward them. They should feel free to discuss these matters with their representative who will sit in the House of Delegates. A delegate is entitled to know the disposition of his constituents; the only way he can learn what his constituents want or do not want, is through free discussion.

The work of the Association is before you. It is to your interest to evaluate it. Read the minutes of the Mid-Winter Session of your Council. You will find them on page 151.

New officers of the Nebraska Cancer Research and Educational society, elected at a meeting of the society Sunday evening, February 16, are:

Dr. H. E. Eggers, Omaha, president; Dr. James F. Kelly, Omaha, president elect; Dr. Frank H. Tanner, Lincoln, secretary; and Dr. Lucien Stark, Norfolk, treasurer.

Advisors elected include Dr. E. W. Rowe, Lincoln; Dr. Thomas Boler, Omaha; and Dr. Earl Connolly, Omaha.

The American Cancer society has granted funds to the state society, which carries out its work in co-operation with the state medical association, the American Cancer society, and the state department of health.

At the meeting, the Nebraska Cancer Research and Educational society announced the availability of two $500 grants in 1947 to be awarded to individuals or groups residing in Nebraska who need such funds for carrying on clinical or research investigations related to cancer. The rules of procedure for applying for these grants can be obtained by writing to the committee on grants of the Nebraska Cancer Research and Educational society, Dr. J. E. M. Thomson, Lincoln, chairman; Dr. H. C. Leuth, dean, University of Nebraska college of medicine, Omaha; Dr. C. M. Wilhelmj, dean, Creighton university college of medicine, Omaha.

Committees appointed by Dr. Eggers include:

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Dr. Joseph Kuncl, Alliance.
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Dr. G. E. Peters, Randolph.
Dr. D. B. Steenberg, Aurora.
Dr. J. P. Tollman, Omaha.
Dr. J. M. Willis, McCook.

PRESIDENT EARLE G. JOHNSON
Grand Island

This is my last message to you on this page. I do not have words to express adequately my appreciation for the honor you have extended to me. I have tried to justify your faith in me. To what extent I have succeeded in my effort only you can judge. For myself, it was a great satisfaction to feel the honor and the glory that goes with the presidency of a great Association.

May I urge you to give my successor the same generous support that you have afforded me. A strong medical association is the best answer to socialistic inroads now threatening our profession.

Again I thank you from the bottom of my heart for affording me the most honorable office to which any physician may be proud to aspire.

Yours very sincerely,

EARLE G. JOHNSON, M.D.,
President.

PANEL DISCUSSION

Blood Substitutes and Parenteral Fluids—Derivation and Their Relative Values*

C. M. WILHELMJ, M.D.
Omaha, Nebraska

Since this paper forms an introduction to the clinical papers that follow, I will make it brief and endeavor to emphasize certain important basic principles rather than to enter into details which may only confuse the entire problem.

The general type of fluid that is most suitable for intravenous or parenteral administration will obviously be determined fundamentally by the pathological alteration that we are endeavoring to correct. If there has been massive hemorrhage, with loss of red blood cells, or if there is a failure to produce red blood cells and hemoglobin, whole blood transfusions are obviously indicated. There is no substitute for red blood cells. Hemoglobin solutions have been tried experimentally, but there are too many toxic reactions to make their use clinically important. In hospitals which maintain blood banks, red blood cells are a byproduct from the preparation of pooled plasma, and where red blood cells are available from this source they can be suspended in isotonic saline, glucose, or, as more recently suggested, in isotonic casein hydrolysates, and, when given in this way, may be an adequate substitute for whole blood.

When there has been a loss of blood plasma with concentration of the red blood cells, as occurs in traumatic and burn shock, it is often stated that whole blood transfusions are contraindicated. In reality, however, in spite of the concentration of the red blood cells, no harm is done by the use of whole blood, although, from a purely theoretical standpoint, the use of plasma or a plasma substitute is preferable.

Plasma may be employed either as the liquid preparation kept under adequate refrigeration or it may be prepared from the dried powdered product. Since dried plasma will keep indefinitely without refrigeration and can quickly be dissolved in distilled water to give any desired concentration, it would almost appear that it is hardly necessary to endeavor to find a substitute. However, there are still technical and financial reasons which often prevent the use of plasma preparations, consequently the search for adequate plasma substitutes must continue.

Any preparation which is to be used as a substitute for plasma must fulfill the following basic requirements:

1. The size of the molecule should be such that the material will not leave the blood stream too rapidly.
2. Osmotic pressure and viscosity must be approximately that of normal plasma.
3. The solution must be isotonic with red blood cells.
4. It must be non-toxic.
5. It must be non-antigenic so that anaphylactic reactions will not occur if more than one injection is given.
6. It must not hinder the normal production of plasma protiens.

Several substances have been found which fulfill most of the above requirements and it would appear that many more will be found if adequate research is done. A few of the main ones which fulfill most of the above requirements or have been used are as follows:

During the first World War, Bayliss suggested the use of 6% gum acacia suspended in physiological saline solution. Since it fulfilled practically all the above mentioned requirements, it was rather extensively used. Rather severe acute toxic reactions were encountered in many cases, but these were shown to be due to the use of impure preparation of gum acacia. When properly purified preparations were used, these reactions were abolished and it appeared that this preparation constituted an ideal substitute for blood plasma. Recent experiments in animals, however, have shown that gum acacia does not fulfill the last requirement mentioned above. It is a foreign substance which cannot be metabolized by the body and is difficult to eliminate. Consequently, it is stored in the reticulo endothelial system, particularly in the liver. It has been found that repeated injections of gum acacia may finally result in so much of this substance being deposited in the liver that liver function is seriously retarded, particularly the production of plasma proteins. Though 6% gum acacia solution may safely be used once or twice, it is definitely not suited for repeated use.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

More recently it has been suggested that a 6% solution of isinglass may fulfill all of the above requirements. Experiments appear to indicate that it is superior to gum acacia. Solutions of gelatin also appear to be promising. The most recent substitute to be used experimentally is a solution of pectin, but up to the present time I do not believe that it has been studied carefully enough to justify any broad statement regarding its suitability or safety. Bovine serum albumin is still in the experimental stage.

I wish now to say a few words about the use of isotonic saline and glucose solutions. When either of these preparations is injected into a normal animal or one which has been subjected to severe hemorrhage, it is found that the elevation of blood pressure is very transitory even when large amounts are injected. Following the injection of large amounts, an examination of the viscera, particularly of the lungs, liver, gastro-intestinal tract and skeletal muscles shows marked edema. Thus it is obvious that isotonic saline and glucose solutions leave the blood stream rapidly and filter into the intercellular spaces. In traumatic and burn shock, the use of large amounts of these solutions is contraindicated and cases have been reported in which the edema of the lungs was sufficiently great to justify the statement that the patient had literally been drowned because of pulmonary edema.

The subcutaneous administration of large amounts of isotonic saline solution in experimental animals following surgery on the gastro-intestinal tract often results in such marked edema that sutures will tear through the edematous tissues and cause peritonitis and subsequent death.

These discouraging remarks must not be interpreted to mean that there are not legitimate uses for these solutions, particularly for isotonic saline solutions. In cases where there has been definite dehydration with loss of tissue fluid and water from the blood, isotonic saline solutions may be ideal and may restore fluid balance more rapidly than plasma or whole blood. In some conditions where there has been salt depletion, the effect is particularly good. Recent studies have indicated that in burn shock the administration of the sodium ion is highly beneficial.

Every few years, some investigator announces a new isotonic solution of inorganic salts which, unlike all others, is claimed to remain in the blood stream and result in a prolonged elevation of blood pressure. The usual story is that, following a few enthusiastic and non-critical reports, the supposed magic solution is found to be no better than saline and disappears into oblivion.

The most recent advance in therapy of this type is the intravenous administration of an isotonic solution of amino acids made by hydrolysis of protein. The amino acids are removed by the liver and synthesized into plasma protein, thus bringing about a rather prompt increase in blood plasma. This process is too slow to be used as an emergency treatment to restore plasma volume in traumatic or burn shock, but it should be instituted immediately after plasma volume has been restored to normal by plasma transfusion. Specific amino acids are often essential in specific metabolic processes and protein hydrolyzates are now being fortified with individual amino acids to hasten the desired metabolic cycle or to protect or promote healing in certain organs, but a discussion of this field is outside the limit of the present symposium.

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On April 18th, at 8:00 p.m., at the Joslyn Memorial, Omaha, Dr. Priscilla White will deliver a lecture on Diabetes, as the guest of the West Central Diabetes Association.

Dr. White is consulting physician at Boston Floating Hospital and New England Deaconess Hospital. She is on the teaching staff of Tufts Medical College, and also on the staff of Joslin Clinic. She has done outstanding work in diabetes in children and diabetes in pregnancy. The latter work has prolonged the lives of many diabetic mothers and their children.

The public and the profession are invited.

PANEL DISCUSSION

The Use and Abuse of Blood Substitutes and Parenteral Fluids in General Surgery*

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In the field of general surgery one has available a number of blood substitutes and parenteral fluids which are commonly employed. These are:

1. Blood Plasma.
2. Serum—Albumin solution.
3. Amigen.
4. Normal Saline solution.
5. Glucose solution with or without saline.
6. Hartmans solution.

Each of these fluids may be specifically indicated, either alone or more frequently in combination. Modern methods of preparation and distribution now make them available in any institution where surgical patients are treated and their optimum use depends entirely upon the intelligence of those directing the patients care.

In a consideration of the rational use of blood substitutes and parenteral fluids, I should like to discuss briefly four general types of problems that confront the general surgeon.

1. Shock.

It has been recently written and stated by competent general surgeons that surgical shock no longer offers a problem in our general hospitals. If this be true, which is open to question, it is resultant from carefully supervised procedures to prevent its occurrence.

Moderate blood loss under anaesthesia may very readily produce shock. In such operative procedures as simple or radical mastectomy, thyroidectomy, partial gastrectomy and rectal resection, total blood loss is usually much greater than is generally appreciated. In surgery of this magnitude it is not only desirable but essential that the blood volume be maintained from the beginning of the procedure. For this the administration of ordinary glucose in N.S.S. is usually adequate, having plasma and whole blood available if anticipated blood loss becomes excessive. If the blood pressure be maintained by such means thruout the procedure, one rarely sees true shock as a postoperative sequalae. A good working rule is to routinely start glucose in N.S.S. by vein at the outset of any elective operative procedure in which more than one hour will be required. Blood should always be drawn and available if excessive bleeding is expected and routinely given to all general surgical patients during surgical procedures requiring from one and one-half to two hours or longer. In the face of severe and unexpected hemorrhage, plasma is the best substitute, but is by no means as effective as whole blood. The necessity of having plasma instantly available in every operating room cannot be overemphasized. The emergency, whether of traumatic or surgical origin, is usually treated here and no delay should be permitted in having plasma within reach.

Postoperative hemorrhage is fortunately a rare complication with modern surgical technique. However, it is seen on occasion, most often from a suture line into the intestinal tract following gastrojejunostomy or partial gastrectomy. Here the problem of hemorrhage into the intestinal tract is similar to that seen with a bleeding peptic ulcer. The important point to remember in therapy is that the fall in blood pressure may be compensatory and lifesaving. A too rapid replacement of fluids in volume by vein may defeat nature's best efforts and precipitate a fatal outcome. In the absence of whole blood, the judicious use of small amounts of plasma at intervals is definitely indicated.

2. Hypoproteinemia or a deficiency in the fixed tissue proteins and the circulating blood plasma has come to be accepted as an extremely important condition in general surgery. It demands early recognition and prompt therapy, occurring both as an acute episode with a sudden withdrawal of the food intake and in its more frequent chronic form in burns, malignant disease and prolonged malnutrition.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

Until recent years whole blood offered the only source of protein for parenteral administration. Today one has available plasma, human serum-albumin and amigen or similar amino acid solutions for combating this condition.

It must be accepted that it is often impossible to have readily available a laboratory where serum protein levels can be determined. These are not essential however, to demonstrate the existence of hypoproteinemia. One may accept a variable degree of hypoproteinemia in any patient who has had persistent vomiting for several days, been deprived of, or unable to eat, an adequate diet for a similar period or who has lost protein thru a large cutaneous wound.

In addition to whole blood, plasma, human serum-albumin and amigen are essential in such cases. Amigen, because of its low cost, ready availability and the fact that in each liter the patient receives 50 grams of glucose and 50 grams of protein in the form of available amino acids, is an ideal solution in most instances. Both in the pre and post operative periods it may be given in from one to three liter amounts daily. Reactions are extremely rare providing three hours are used for the administration of each liter and that no solution which is cloudy or evidences sediment be used. Its use is highly desirable as a postoperative fluid in all patients on Wangensteen suction drainage and essential after gastric or intestinal anastomoses in which the development of stomal edema may present a real problem as a result of hypoproteinemia.

3. Burns offer a third group of patients in which the management of fluids may be the determining factor in survival or death. Here the problem may be divided into three phases.

a. Immediate or shock phase (lasting from 24-48 hours).

b. The secondary phase (from 48 hours to 10 days).

3. The stage of repair (from 10 days till healed).

During the initial or shock phase, plasma and sodium chloride solution for the sodium ion are essential in large quantities depending upon the extent and severity of the burn. After two days time, sodium chloride administration must be rapidly limited because of the risk of salt retention and edema. During this second phase the administration of moderate amounts of plasma and an occasional transfusion of whole blood are important.

The prolonged third stage of repair is that one in which theray is so often inadequate. These individuals who require repeated grafts are usually in pain, have a reduced food intake and invariably develop both anemia and hypoproteinemia. These must be controlled with sufficient blood, blood plasma and amigen in addition to a high caloric diet with adequate vitamins if healing is ever to progress normally.

4. Routine postoperative care of the surgical patient following an uncomplicated abdominal procedure is the fourth group of patients of which I wish to speak.

In the last twenty years much has been accomplished in establishing the fluid needs of the postoperative patient, but we have seen the extremes of omission and commission during this period. There were the years when every patient must have at least five liters of salt solution by vein each day to be under what was considered adequate therapy and the opposite pole of thought in which patients were permitted to become grossly dehydrated and in profound acidosis for want of fluid.

What then constitutes an adequate fluid intake after surgery and what fluids shall be given?

The postoperative surgical patient must be kept in a state of positive fluid balance and the only way this can be determined is to insist on an adequate intake and output chart during the first five postoperative days or until a regular diet is taken. Computing fluids given, minus fluids lost by all routes, including the insensible loss of one liter per day thru the skin, readily gives the result which should show the patient receives about one liter more than be shown in the debit column. A second useful rule during this period is to supply sufficient fluid to insure a daily urinary output of one liter or more.

For an average adult patient during moderate weather without excessive loss thru a Miller-Abbott, Wangensteen, common duct or enterostomy tube, approximately 3000 ccs. per day will represent an adequate fluid intake by parenteral routes if this is the only fluid being given. This may be reduced as soon as food intake is begun and entirely discontinued when the patient is taking adequate fluids by mouth with a soft diet.

Glucose is essential for fuel in the postoperative course to prevent the development of acidosis. This is particularly true in children in whom postoperative vomiting occurring after twelve hours following surgery is usually resultant from acidosis. Glucose intravenously is almost specific and ideally should be given immediately after surgery to forestall the development of acidosis in every sick child.

Hartmans solution is especially useful in children and being bufferred can be successfully used in the therapy of both acidosis and alkalosis. While in general I am very much opposed to the administration of glucose by any parenteral route other than by vein if it cannot be taken orally, it has been demonstrated repeatedly that in a 2½ per cent solution with Hartmans solution its administration under the skin in children is quite safe.

The injudicious use of saline is one of the most common errors in ordinary postoperative care. Realizing that a single liter of normal salt solution contains nine grams of salt and this is the equivalent of one's normal daily salt requirement, it follows that it is entirely illogical to give the ordinary surgical patient two or three liters of saline—representing 18 or 27 grams of salt which he must either excrete or retain with the development of hyperchloremia and edema. In certain instances more than 9 grams of salt may be urgently required when sodium or chloride loss has been excessive, but such patients should be carefully individualized.

The postoperative patient needs sugar, protein, salt, water and vitamins and on these he will do very well until food can be taken by mouth. If one keeps in mind these essential requirements and the necessary amounts, the administration of parenteral fluids to the surgical patient becomes greatly simplified.

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The American Academy of Allergy offers an Orientation Course in Clinical Allergy under the sponsorship of University of Nebraska College of Medicine at the Medical School and at Hotel Fontenelle, Omaha, Nebraska, May 19-23, inclusive. Fee $40.00. (Full-time Teachers, Residents, and Interns admitted Free of Charge).

This course is planned to acquaint physicians with basic principles of diagnosis and management of allergic diseases.

The faculty is as follows:

Milton B. Cohen, M.D., F.A.C.P., Associate Editor, "Journal of Allergy," Cleveland, Ohio.

O. C. Durham, Chief Botanist, Abbott Laboratories, Chicago.

Charles H. Eyermann, M.D., Assistant Professor of Clinical Medicine, School of Medicine, Washington University, St. Louis, Mo.

Samuel M. Feinberg, M.D., F.A.C.P., Associate Professor of Medicine, Chief of Division of Allergy, Northwestern University Medical School, Chicago.

French K. Hansel, Assistant Professor Oto., Washington University College of Medicine, St. Louis, Mo.; Editor in Chief of "Annals of Allergy."

Noel S. Hanson, Assistant Professor of Agronomy, Assistant Extension Agronomist, University of Nebraska College of Agriculture, Lincoln.

Wayne M. Hull, M.D., Associate Member of American College of Physicians, Instructor in Medicine, University of Nebraska College of Medicine, Omaha.

J. Hewitt Judd, M.D., Professor of Ophthalmology and Chairman of the Department, University of Nebraska College of Medicine, Omaha.

G. A. Koelsche, Ph.D., M.D., Consultant in Allergy, Mayo Clinic, Rochester, Minn.

Harold Lueth, M.S., Ph.D., M.D., F.A.C.P., Dean and Professor of Internal Medicine, University of Nebraska College of Medicine, Omaha.

E. L. MacQuiddy, M.D., F.A.C.P., Associate Professor of Medicine, University of Nebraska College of Medicine, Omaha.

Ruben Nomland, M.D., Professor of Dermatology and Chairman of the Department, University of Iowa College of Medicine, Iowa City.

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Herbert J. Rinkel, M.D., F.A.C.P., Kansas City, Mo.

John R. Schenken, M.D., Professor of Pathology, University of Nebraska College of Medicine, Director of Laboratories, Methodist Hospital, Omaha.

John M. Sheldon, M.D., Associate Professor of Medicine, University of Michigan Medical School, Ann Arbor, Mich.

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PANEL DISCUSSION

Blood Substitutes and Parenteral Fluids in Gynecology and Obstetrics*

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In obstetrics the conditions which commonly require blood substitutes and parenteral fluid therapy are:

1. Shock from hemorrhage.
2. Dehydration from toxemia.
3. Dehydration from long, exhaustive labor (usually where uterine inertia has played a part).

The solutions most readily available and commonly used are:

1. Blood plasma.
2. Amigen.
3. Ringer's solution.
4. Hartman's solution.
5. Dextrose solutions in various percentages.
6. Serum albumin.

HEMORRHAGE IN OBSTETRICS

The two most common causes of antepartum hemorrhage are placenta praevia, and premature separation of the placenta. Here there is no blood substitute as efficacious as whole blood transfusion. The value of whole blood transfusion cannot be overemphasized. It is good practice, as soon as the patient is admitted, to obtain a suitable donor or blood from a blood bank before anything else is done. Blood plasma can be used as the best substitute if the patient is in shock. Prior to plasma ten per cent glucose intravenously may be substituted until the typing can be done and a whole blood transfusion used.

Where cases of antepartum hemorrhage can be hospitalized, worked up, diagnosed and treated, post partum hemorrhages can rarely be predicted. They present an emergency problem. The common causes of post partum hemorrhages are: 1. defective functioning of uterine musculature or atony, 2. retained placental tissue, 3. deep tears involving the tissue of the birth canal. While the measures are being taken for hospitalization plasma can be substituted for whole blood without delay much as it was administered in the armed forces.

The loss of 600 or more cubic centimeters of blood is generally considered a post partum hemorrhage, although blood loss expressed as a percentage of body weight, as shown by Pastore(1), is of far more significance.

If a patient is in shock from post partum hemorrhage a 10 per cent glucose solution (1000 c.c.) can be used intravenously while preparations are being made for whole blood transfusion. Where an operative delivery is expected there is no excuse for not having preparations made for immediate transfusion.

Proper management of the third stage to conserve blood will cut down the necessity for parenteral therapy. Vigorous Crede method of placental expression is rarely indicated. By a modified Calkins technic of placental expression bleeding due to a prolapse of the fundus into the vagina can be avoided.

Early delivery of the placenta by use of pitocin, 1/3 c.c. intravenously and 2/3 c.c. subcutaneously immediately after delivery of the head and ergonovine (.0002 gm.) after the delivery of the placenta make it possible in most cases to repair the episiotomy in a dry field after the placenta is delivered. To conserve blood after an episiotomy it is frequently necessary to clamp bleeding vessels before delivering the baby. Ligating the vessels at this time is usually not indicated and can be postponed until the child is delivered.

Because the etiology of toxemia of pregnancy is unknown, many classifications for toxemias have been proposed. The classification worked out by the American Committee on Maternal Health in 1937 is generally accepted.

1. Hypertensive Disease
2. Renal Disease
3. Preeclampsia (a) severe (b) mild

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4. Eclampsia
5. Vomiting of pregnancy
6. Acute yellow atrophy of the liver
7. Unclassified.

In the severe eclamptic type of toxemia Dieckman(1) stresses the fact that the blood and urine findings are the result of vomiting, dehydration and starvation. Here proper use of hypertonic glucose solution is one of the outstanding accomplishments of modern obstetrics, 500 to 1000 c.c. of a twenty per cent solution being given in 30 to 60 minutes and repeated every six to eight hours if necessary. Sufficient glucose should be used to insure a urinary output of 300 c.c. per hour. Normal saline, Ringer's solution, and sodium bicarbonate solutions are usually contraindicated in eclampsia because the tissues are usually edematous and therefore contain an excess of electrolyte.

In hyperemesis gravidarum without edema large amounts of water and salt must be given intravenously to replace that lost in vomiting. Ten per cent glucose intravenously to restore the depleted glycogen in the liver, amigen, a pancreatic digest of casein containing amino-acids and polypeptides is certainly indicated in vomiting of pregnancy to supply parenteral protein and should be administered intravenously.

Farr(5) has shown that amigen is well tolerated in nephrosis cases and keeps up a positive nitrogen balance.

In acute yellow atrophy of the liver or any hepatic insufficiency amigen is contraindicated. The early work of Van Slyke(3) showed that the liver played an important part in amino-acid metabolism for it is here that deaminization and serum protein synthesis are believed to take place. In liver insufficiency there may be inability to deaminize amino-acid. Brunschwig(3) also advises against use of amigen in certain types of hepatitis.

I have made a practice for years of giving intravenous glucose (1000 c.c. of 5%) in normal saline for long protracted labors, particularly where the mother's pulse rate increases and there is evidence of exhaustion. In cases of inertia and in elderly primip cases who are slow because of soft tissue dystocias repeated intravenous injections of 5% to 10% glucose may be used with beneficial results, particularly in cases with nausea and slight vomiting. Those following the Michigan type of treatment for toxemias as advanced by F. R. Schem, F. L. McPhail(5) and others, use large amounts of isotonic dextrose (5%) in distilled water intravenously. In short, the aim is to supply fluids (4,000 to 10,000 c.c. daily) and keep the patients on a neutral diet. Frequently acid drugs are used —ammonium chloride in enteric coated capsules (60 to 120 grs. in 24 hours), or five to ten drops of dilute hydrochloric acid given in a full glass of water every hour from 7 a.m. to 7 p.m. These authors have shown recoveries from nephritis with correction of anuria and clearing of edema by administration of 6 to 7,000 c.c. of water for several days, mainly by isotonic solutions intravenously, clearing of massive edema without disaster in cases of advanced nephritis, which often show choked discs or grossly diseased hearts in the face of intakes averaging more than 4,000 c.c. daily. Edema fluid is a simple volume increase of the interstitial fluid. The alkaline edema fluid remains inertly in the internal environment unless the bicarbonate fraction of its sodium salt is used up by ever forming metabolic acids or by injested acids. To maintain acid base equilibrium slight changes occur in the interstitial fluid volume throughout 24 hours. If continued indefinitely in one direction with increase in volume of interstitial fluid clinical edema results. In the other direction, in the absence of adequate water for the regulatory function of the kidney, the continuous elimination of salts at the expense of body water leads to cellular dehydration, fluid concentration, anuria through accumulation of acid salts, and acidosis.

Sodium leaves the body via the kidneys in solution as urine. The amount of urine water needed for elimination of the sodium depends upon the functional capacity of the kidney. Sufficient water must reach the kidney, after the body water requirements are met to eliminate the sodium.

The diet is not simply a low salt diet, nor is it merely a low sodium diet. At all times it must yield a neutral or slightly acid ash. This prevents the neutralization of the metabolic acids, which mobilize already stored sodium and prevents the storage of sodium that is taken in the diet.

The diets used in the regime are based on the neutral diets and on the tables in Newburg and Mackinnon's Practice of Dietetics(5). In eclampsia with severe edema the treatment recommended would be as follows:

1. Neutral diet consisting of 800 calories.
2. 90 grains of ammonium chloride given in 24 hours, and
3. Fluids orally and intravenously—4,000 c.c. daily.

By this simple regime I have seen patients lose 11 pounds of water weight in 24 to 36 hours. The intake and output of urine should of course be determined.

Hydramnios constitutes a serious obstetrical problem for which there has been no adequate treatment. The exact source of the liquor amnii is not known, hence there is no explanation for polyhydramnios. Abrams and Abrams(2) in the American Journal of Obstetrics and Gynecology (August 1946) have reported two cases of polyhydraminos which, by the administration of ammonium chloride, showed a marked weight loss, teneseness of the uterine became less marked and uneventful delivery resulted.

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NEW CHEMICAL AGENT AGAINST INFECTIOUS DISEASES

After nearly four years of research, a powerful germ-killing chemical, called bacitracin, has been developed to give the medical profession a potent new weapon with which to tame a long list of infectious diseases.

Frank L. Meleney, M.D., and Miss Balbina Johnson, B.A., of Columbia University's College of Physicians and Surgeons and the Presbyterian Hospital, New York, describe their powerful antibiotic agent in the March 8 issue of The Journal of the American Medical Association.

Bacitracin, they say, was tried on 100 patients and saved 62 of them from the surgeon's knife. In 100 cases of surgical infections treated locally with bacitracin a favorable response was obtained in 88 per cent.

"Bacitracin will be of clinical importance," the authors say, "only if it can succeed where penicillin or the sulfonamide compounds cannot."

Infected fingers, boils, carbuncles, sties and ulcers are some of the conditions in which bacitracin made it unnecessary for the surgeon to lance, or, if surgery was needed, it helped speed healing.

The substance worked with such speed, the article says, that the results surprised both the patient and physician.

Bacitracin originally was obtained from a germ which was found in the badly infected wound of a seven year old girl, Margaret Tracey, who had suffered a compound fracture of a bone in her leg. The new antibiotic was named "bacitracin" in her honor. Dr. Meleney and Miss Johnson noticed that in ordinary culture mediums the bacillus produced a wide spectrum of antibacterial activity. They also found that the subsequent crude filtrate proved very effective when it was injected into the center of boils and carbuncles.

Then, the authors say, the problem of production arose, but after months of study small test samples of active material were produced. Bacitracin has since been made up in an ointment base which melts at body temperature.

The drug was tried eventually on 54 men and 46 women whose cases represented "the ordinary run of infections which are seen in any surgeon's office or in the surgical clinic of any hospital."

Boils, carbuncles and deep and superficial abscesses received an injection of the solution into the center of the wound. "The first injection often caused a burning sensation which lasted a short while," the article says, "but this was seldom as acute with subsequent injections."

In describing results of their treatment, the authors say:

"One patient with a large indurated and inflamed abscess of the face and another with a deep abscess of the chest wall felt so much better after one injection that they did not think it necessary to come back the next day for treatment. On the third day when they returned the wounds were quiescent.

"Treatment of several patients with sties required nothing more than bacitracin solution dropped in the eye."

One patient who was treated had an active infection around an ingrowing toenail. The wound was left open and dressed with bacitracin ointment. "When seen two days later," The Journal article says, "the inflammation had subsided and the wound had closed itself and looked as if it was healing by primary union."

Another patient was treated for a deep abscess of the cheek. "The infection promptly subsided following aspiration of the pus and the injection of bacitracin on two successive days," the article continues. "The swelling was all gone on the fourth day, and the need for surgical intervention was obviated."

The authors explain that most of he organisms found in the infections treated were susceptible to both penicillin and bacitracin. Thirty were resistant to penicillin and susceptible to bacitracin. Six were resistant to bacitracin and susceptible to penicillin. A few were resistant to both.

PANEL DISCUSSION

Blood Substitutes and Parenteral Fluids*

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The evolution of blood transfusions and its substitutes in pediatric practice is an interesting study. From a more or less empirical procedure, with experience and research there are now some definite indications for its use. However, the indications are largely a result of individual trend and experience.

In giving fluids either orally or by transfusion, it is well to have the following figures in mind and not overload the body mechanism:

The daily requirements of fluids up to 2 years are 2 to 2½ ounces per pound; 2 to 6 years, 1½ ounces per pound; after 6 years, 1 ounce per pound.

The approximate percentage of fluid loss is 43% in urine; 45% in skin and lungs; 9% in feces; 3% retained.

Normal fluid content of the body is about 65 to 70% of total weight.

The veins usually selected for transfusion are the superficial temporal veins of the scalp (especially for small infants), internal saphenous of the ankles, ante-cubital veins, dorsal veins of the hands and wrists, external jugular, and femoral veins.

Blood transfusions or parenteral fluids are frequently necessary in treating shock, severe burns, abnormal blood conditions, severe diarrhea, prematurity and athrepsia, nutritional anemia, and severe infections.

The common method of giving blood transfusians to children is by the use of citrated blood. The blood of the recipient must be properly matched with that of the donor in order to insure compatibility. Recently in the treatment of anemia the transfusion of concentrated red blood cells has been used with satisfactory results. With this procedure, fewer transfusions are necessary and less fluid is required. The amount of citrated blood given varies from 10 to 20 cc. per kg. of body weight. The concensus of opinion is that small transfusions given frequently are better tolerated than a large single transfusion.

Fluids are often indicated subcutaneously. Physiologic saline and Ringer's solution are given for dehydration and mild acidosis. Not over 3% sol. of glucose in water or saline should be given subcutaneously. Six molar sodium lactate solution is useful in the treatment of acidosis. This solution also is efficacious to prevent the occurrence of crystals and blood in the urine which sometimes accompanies the giving of sulfadiazine. Symptoms often point to a disturbance in the acid base equilibrium. Estimation of the blood protein levels and the CO_2 combining power is frequently necessary so that the indicated transfusion may be given. Normal blood protein levels for prematures is 4.7%. Birth to 3 months is 5.7%. Three months to 2 years is 6.5%. Solution of amino acids may be given subcutaneously or intravenously. They are indicated when the alimentary tract is obstructed, when protein cannot be properly assimilated as in protracted diarrhea, and also following abdominal operations when the gastro-intestinal tract should be kept at rest.

For subcutaneous injectons — may give amino acid 3⅓%, 3⅓% glucose in ⅓ strength Ringer's solution. When there is a significant serum protein deficit, blood plasma or serum albumen should be supplied in addition to the amino-acids. Amino acids may be given intravenously. A 5% glucose combination with 5% amino acids is frequently employed. The solution should be given slowly at the rate of 1 cc. per minute to an infant, and not faster than 5 cc. per minute to an older child. Solutions of amino acids are readily contaminated with bacteria. They should be given slowly and from a closed non-contaminated flask.

The great advantage of plasma is ready storage and freedom from the necessity of typing if pooling has been done. In many instances, all the purposes of whole blood can thus be met. It should not replace whole blood in the treatment of hemorrhage or anemia. Its value is especially significant in the treatment of burns, shock and in conditions where there is present hypoproteinemia.

There is apparently a wide variation in the severity and classification of the condition erythroblastosis faetalis. An Rh positive father mating an Rh negative mother theoretically there is a strong possibility the offspring will be Rh positive and develop erythroblastosis. This hemolytic anemia with its accompanying symptoms of icterus, enlarged liver and spleen, petechiae, free bleeding and occasionally hydrops occurs approximately once in 200 births. The remedial agent is tranfusion of properly matched Rh negative blood. A red cell count in the neighborhood of 3,500,000 is safe and thus frequent transfusions are not required. The persistence of macrocytes is an indication that the active stage of the condition is still present. One difficulty in the treatment of erythroblastosis is the scarcity of properly matched Rh negative blood. The mothers Rh negative blood is contraindicated. Because of the scarcity of Rh negative properly matched blood and the unsatisfactory response in some cases other methods of treatment have been suggested. Recent reports have indicated that recovery occurs with the administration of small transfusions of matched Rh positive blood. It is possible that some cases will respond to transfusions of concentrated red blood cells. A recent report outlines the recovery of one of twins with hydrops - erythroblastosis following transfusion of concentrated serum albumen.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

If intravenous serum albumen will relieve the edema of erythroblastosis faetalis, the thought at once occurs, would its use assist in relieving the edema of bulbar polio? I quote from a personal letter from Dr. Charles A. Janeway, Professor and Head of Department of Pediatrics, Harvard Medical School.

> "The only rationale for albumen would be that it might reduce edema of the central nervous system. I believe it will do so in certain types of edema and may ultimately have quite a use for the control of increased intra-cranial pressure of certain types. Whether it will be as effective in the severe inflamation such as occurs in poliomyelitis, I have no way of knowing."

Certainly, the transfusion of serum albumen can do no harm. Its use in bulbar polio may be worthy of trial.

Hyper-immune pertusis serum has been available to Nebraska physicians for several years. It has stood the test of time. It is valuable in the treatment, prevention, and modification of whooping cough.

During our recent measles epidemic, normal immune serum Gamma Globulin (a blood fraction) was used extensively throughout the state for the prevention and modification of measles. The results of its use were apparently satisfactory.

Penicillin is indicated in all staphylococcic and hemolytic streptococcic infections. It may be given intravenously or intramuscularly. Reactions from use of the drug do occur, but not as frequently as formerly. They are thrombophlebitis, chills, with or without fever, faintness and flushing of the face following intravenous injection and occasional urticarial reactions. Concentration of 0.2 oxford unit per cc. of blood is necessary for effective therapeutic results. The dosage for infants and children is not as yet firmly established and depends largely on the experience of the individual physician. More laboratory work must be done on blood concentration of the specific diseases and the different age groups before definite dosage is established.

The newer antibiotic streptomycin has rather recently been called to our attention in the medical literature. Apparently the drug is indicated in the treatment of those diseases which are caused by gram negative organisms. Streptomycin has the disadvantage of producing in the infectious organism itself a rapid resistance to it, thus causing a "fastness." It is recommended, therefore, that all organisms be tested for their sensitivity before treatment so that adequate concentration of the drug in the body tissues may be rapidly accomplished. It is necessary to maintain a concentration sufficient to inhibit completely the growth of the germ responsible for the infection. Recent case reports testify to its therapeutic usefulness in influenzal and tuberculous meningitis.

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PANEL DISCUSSION

Blood Substitutes and Parenteral Fluids—Use and Abuse in Internal Medicine*

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Blood substitutes are substances derived from sources other than human blood which may be used in place of blood in the vascular stream for diverse purposes. These substances are neither as effective or as safe to use as whole human blood or any of its specific fractions which have been isolated from pooled sources. Recently protein hydrolysates have been added to this group of derivatives. They have occupied the attention of physicians particularly in reference to replacement of the protein factor.

These substitutes are of two types depending on their source. The natural source blood substitute is bovine plasma and albumin or despeciated plasma. These substances have osmotic properties that are similar to human blood. They have also marked antigenic properties and are not practical for use on this account. Gelatin is another of this group, but has little osmotic power because of the small size of its molecules and because it is lost early from the circulation. The unnatural substitutes such as gum acacia have the advantage of osmotic properties while in the circulating blood, but acacia is deposited in the liver and interferes with protein synthesis(1).

Blood derivatives provide the most effective blood substitutes. Human blood plasma or serum, is now available for substitution therapy as are certain specific proteins derived from the same source, such as serum albumin and serum globulin. The use of these substances depends on precise knowledge of their chemical behavior, particularly on the size of the protein molecule. Recently synthetic proteins similar to human protein have become available. Protein hydrolysates (amigen) are mixtures of digested proteins in the form of amino acids. These substances are derived primarily from digested casein supplemented by tryptophane and cystine. Its use is primarily in maintaining nitrogen balance in patients who are either unable to take or assimilate food by mouth.

From the internists viewpoint three clinical syndromes need consideration for the administration of blood or blood substitutes and parenteral fluids. These are shock, hypoproteinemia, and edema. These pathological syndromes particularly shock are seen frequently in medical practice and are of grave concern. In medical shock or peripheral vascular collapse, the first thought is to determine the etiology in relationship to cardiac efficiency. This is imperative because of the incidence of left ventricular failure in acute coronary occlusion, a most frequent cause seen by the internist.

In the event of ventricular failure it is important not to increase the blood volume in the peripheral circulation. Blood substitutes in this situation are contraindicated. Parenteral fluids may be given if indicated in either hypertonic or normal solutions with less effect on blood volume(2). The treatment should be directed at the heart rather than the peripheral circulatory failure. Other conditions such as the shock seen in diabetic coma should be treated by glucose administration and insulin. Plasma may augment this picture to relieve the shock. Addisons disease may produce a shock-like syndrome and treatment by blood substitutes and chlorides in particular is clearly indicated. Chloride balance is life saving here. The acute phase of adrenal insufficiency (Waterhouse Friederichs) syndrome is a clear indication for plasma.

Medical shock may attend severe infections such as meningitis, typhus, Rocky Mountain spotted fever in the early phase. Use of plasma early in the disease is often as life saving a measure as is its prompt use in surgical shock. Dehydration should be relieved as promptly as possible in these profound states. Hemorrhage is seen frequently from peptic ulcer. In this condition use of blood and blood substitutes should be used with extreme caution. It is imperative to treat only the shock secondarily. Blood pressure should be watched carefully but not treated too enthusiastically. Transfusions are more effective after bleeding is under control to return the blood to its normal count. Hemorrhage that occurs from bleeding points such as varicosities in the oesophagus and hemorrhoids in cirrhosis may be treated temporarily with blood and blood substitutes in the early or bleeding phase.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

Hypoproteinemia is seen medically in two main classifications, one in which protein is either poorly supplied or synthesized, secondly, if it is lost excessively in one or all fractions. The former is largely of a chronic type seen in inadequate diets or poorly nourished patients who have difficulty obtaining or retaining food. During the recent war hypoproteinemia was seen frequently in recovered prisoners. Plasma was used with success in treatment of soldiers in the eastern theatre(3). This type of therapy however should be used only as a stop gap until adequate replacement can be given by dietary measures. Wasting disease such as carcinoma and Hodgkins disease may need parenteral protein replacement therapy. Recent experience with cirrhosis of the liver has shown the great need of protein and in the acute phase replacement is indicated by either plasma or amigen solutions. These are used only in situations in which nourishment is not taken orally due to vomiting or some other cause. The acutely ill patient with cirrhosis can be temporarily tided over until his appetite and tolerance for food returns. Recently prolonged treatment in cirrhosis by parenteral administration of albumin has been advocated by Thorn(4). Hypoproteinemia with protein loss is illustrated classically by the nephrotic phase of chronic glomerulonephritis. In this disease the albumin is the protein that is lost first and most consistently. This may be replaced temporarily by parenteral administration of serum albumin. In cases in which the kidney damage is so severe that globulin is also lost, plasma replacement is superior to serum albumin. Treatment with gum acacia has largely been abandoned. It should be stressed that administration of these substances is only a temporary measure and should be used to correct existing specific deficiencies only until the kidney has a chance to heal, through the ordinary course of the disease. This is substitution therapy and should be considered as such. The same principle applies in diseases in which large collection of albuminous fluid occurs in ascites or pleural effusions. Here the problem is a replacement by amino acids and plasma in respect to maintenance of nitrogen balance. The principal use of plasma and protein hydrolysates parenterally in these cases is often a futile attempt to reverse the process by maintenance of an adequate serum protein level.

The use of blood substitutes and parenteral fluids in particular has been influenced in the last few years by many studies in cardiac failure as well as in edema. The work of Schemm(6) has been notable. The basic idea propounded by this author is that the kidney is able to excrete water even though hampered by pathological processes provided the blood is delivered to it with an excess of anions. This has given rise to the apparent incongruity of giving parenteral fluids in the face of a persistent edema.. Good results are claimed for this method. Subsequent control and follow up studies have also shown this to be a valuable method of treatment of the edema in cardiac failure. The anhydremia that existed by forced dehydration brought about by severe restriction of fluids has been brought sharply into focus. Fluid balance is the goal in cardiac failure. The indications for parenteral fluid are clear when dehydration exists and oral fluids are not taken due to digitalis effect or other factors influencing oral administration of fluid. Hermann(7) feels that hypoproteinemia is also a factor in cardiac edema. If the serum protein is low and dietary measures have not been adequate, amigen may be used parenterally with good effect until adequate oral protein can be successfully assimilated. The protein hydrolysate is to be preferred to plasma because of the circulatory load produced by plasma. Use of amigen should be with extreme caution and precise technique of administration. It is of limited use and only given in chronic mild cardiac failure with hypoproteinemia.

CONCLUSION

Some of the recent concepts of parenteral use of fluids and blood substitutes have been discussed.

There are specific indications for these substances. Indiscriminate use of these agents is to be condemned.

Clinical recognition of dehydration is important. If recognized it can be promptly relieved by adequate parenteral fluid.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

NEBRASKA STATE MEDICAL ASSEMBLY PROGRAM

Paxton Hotel, Omaha

Tuesday, April 29, 1947 - 9:00 a.m.

Frank D. Ryder, Grand Island, presiding

9:00 Motion pictures
9:20 Title to Be Announced
—Frank R. Peterson, Iowa City, Iowa
9:40 "New Agents in Treatment of Blood Dyscrasias"
—Willis M. Fowler, Iowa City, Iowa
10:10 "Curare—Its Past and Present"
—Stuart C. Cullen, Iowa City, Iowa
10:40 Presidential Address
—Earle G. Johnson, Grand Island
11:10 Installation of President
—G. E. Charlton, Norfolk
11:25 Necrology
11:30 Report of Program Committee
11:30 "A Doctor Enters the Insurance Field"
—Mr. Frank Smith, Director, Associated Medical Care Plans, Chicago
12:30 Alumni Luncheons
—University of Nebraska
—Creighton University
2:00-4:30 Symposiums
Room 1—John R. Schenken, Omaha, presiding
"Medical and Surgical Aspects of Blood Dyscrasias"
—F. R. Peterson and Willis M. Fowler, State University of Iowa College of Medicine
Room 2—Geo. W. Covey, Lincoln, presiding
Subject to Be Announced
—Cameron Haight, University of Michigan Medical School
6:30 Dinner
—G. E. Charlton, Norfolk, presiding
Immediately following dinner:
"Some Problems in the Economics of Medical Care"
—H. H. Shoulders, Nashville, Tennessee, President, American Medical Association

Wednesday, April 30, 1947 - 9:00 a.m.

Wm. McGrath, Grand Island, presiding

9:00 "Plastic Repair of Massive Cutamous Defects"
—Chas. W. McLaughlin, Jr., Omaha
9:20 "The Surgeon's View of Psychiatric Problems in a Surgical Practice"
—William P. Kleitsch, Lincoln
9:40 "A Physician's Role in Behavior Problems"
—G. Lee Sandritter, Norfolk
10:10 To Be Announced
10:30 "Urticaria and Angioneurotic Oedema"
—John M. Sheldon, Ann Arbor, Michigan
11:00 "Diagnosis and Treatment of Bronchogenic Tumors"
—Cameron Haight, Ann Arbor, Michigan
11:30 "Relation of Gastric Ulcer to Cancer"
—Henry K. Ransom, Ann Arbor, Michigan
12:00 Luncheon
—Geo. L. Pinney, Hastings, presiding
Immediately following luncheon:
"Cancer of the Esophagus"
—William Adams, University of Chicago, Chicago, Ill.

2:00-4:30 Symposiums
Room 1—Donald Steenburg, Aurora, presiding
"Diseases of the Large Bowel"
—Henry K. Ransom and John M. Sheldon, University of Michigan Medical School
Room 2—B. C. Russum, Omaha, presiding
"Anuria and Oliguria"
—Robert T. Tidrick, Rubin Flocks, and Emory D. Warner, State University of Iowa College of Medicine
6:30 Banquet, Entertainment

Thursday, May 1, 1947 - 9:00 a.m.

9:00 "Urethral Stricture Treated by Internal Urethrotomy"
—Edwin Davis and Leroy W. Lee, Omaha

9:20 To Be Announced

9:40 "Complications of Wrist Fractures"
—W. W. Bartels, Lincoln

10:10 "Peritoneal Irrigation in Uremia"
—E. A. Connolly, Omaha

10:30 "Treatment of Certain Serious Infections in the Newly Born Infant"
—Park J. White, St. Louis, Missouri
11:00 "Management of Difficult Labor"
—T. K. Brown, St. Louis, Missouri
11:30 "Cancer Potential in Involuting Organs"
—Robert J. Crossen, St. Louis, Missouri
12:00 Luncheon
R. S. Wycoff, Lexington, presiding
Immediately following luncheon:
"Treatment in the Early Stages of Poliomyelitis"
—Philip Lewin, Chicago, Illinois
2:00-4:30 Symposiums
Room 1—Earl C. Sage, Omaha, presiding
"The R. H. Factor and Erythroblastosis"
"Vaginitis in Pregnancy"
"The Thymus Problem"
—T. K. Brown and Park J. White, Washington University School of Medicine
Room 2—Ralph Luikart, Omaha, presiding
"Sterile Marriages and Functional Uterine Bleeding"
—Robert J. Crossen (Title to be announced)
Washington University School of Medicine

TECHNICAL EXHIBITS

ANNUAL ASSEMBLY

NEBRASKA STATE MEDICAL ASSOCIATION

April 28, 29, 30, May 1, 1947
Paxton Hotel
Omaha, Nebr.

Booth No. 1—ELI LILLY & CO., Indianapolis, Ind. The Lilly exhibit this year features an interesting presentation on the heart and a discussion on cardiac drugs. Many Lilly products are to be on display; representative literature will be available. The attending Lilly medical service representatives will be pleased to assist visiting physicians whenever possible.

Booth No. 2—THE SMITH-DORSEY CO., Lincoln, Nebr. Estrogenic hormone, Liver and other parenteral products will be featured in the Dorsey exhibit. Dorsey representatives welcome you to the exhibit every day.

Booth No. 3—PICKER X-RAY CORP., Sioux City, Iowa. The Picker X-Ray Corporation will have on display the popular Picker Waite Century, a single tube radiographic and fluoroscopic X-Ray unit, and also the Picker Waite Zephyr, which is a unit especially designed for superficial and intermediate x-ray therapy.

Booth No. 4—GOETZE NIEMER CO., St. Joseph, Mo. We will display a complete general line of hospital and surgeon needs. Welcome to our booth.

Booth No. 5—GENERAL ELECTRIC X-RAY CORPORATION, Omaha, Nebr. Factual discussions with members of our Omaha Sales and Service Organization during the meeting will aid you in your future apparatus planning. If you are thinking about new and improved x-ray or electromedical apparatus, our layout engineers can help you with detailed plans and specifications. Possibly an improvement in radiographic end results is indicated or you may wish to know how G. E.'s Periodic Inspection and Adjustment Service can help keep your equipment at its maximum operating efficiency. Why not drop in and avail yourself of our wide experience and know-how.

Booth No. 6—PROGRAM SERVICE CO., Lincoln, Nebr. This exhibit will feature "Music by Muzak," a soft and sweet background music containing no vocal selections. This music is programmed scientifically to aid people without distraction and to relax patients who are waiting for needed medical care. Employees are kept alert and efficient. Over 100 cities in the U. S. now have this service for doctor's offices, etc.

Booth No. 7—SEILER SURGICAL CO., INC., Omaha, Nebr. We will endeavor to have the latest of equipment on display and welcome all to this exhibit where we will have technicians in charge to give service and information requested.

Booth No. 8—E. R. SQUIBB & SONS, New York. Visit this modern display of a modern company. We hope to personally meet every physician registered at the Annual Assembly. We are happy to have the opportunity to participate in your show.

Booth No. 9—CIBA PHARMACEUTICAL PRODUCTS, INC., Summit, New Jersey. You are invited to visit this exhibit for latest information on PYRIBENZAMINE, the new antihistaminic and antiallergic compound; PRIVINE HCl, an effective, long lasting nasal vasoconstrictor; and MENTANDREN Linguets, the most potent orally active androgenic hormone in suitable form for sublingual absorption. The representative present will be glad to answer any questions you may have about these or other Ciba products.

Booth No. 10—J. B. LIPPINCOTT COMPANY, Philadelphia, Pa. Presenting a complete line of Lippincott Selected Professional Books and Journals. Be sure to see the current issue of AMERICAN PRACTITIONER—the monthly medical journal designed to shorten the lag between experiment and practice. We will display many new books and new editions that every doctor will want in his office.

Booth No. 11—HOLLAND-RANTOS COMPANY, INC., New York. You are cordially invited to visit this display of nationally known and universally used Koromex contraceptive specialties. Besides the new Koromex Set Complete, will be the new Nylmerate Jelly, introduced only a short time ago and received enthusiastically for the treatment of trichomoniasis and vaginal discharges of a non-specific origin. Samples will be available, as will copies of the new physician's patient instruction chart.

Booth No. 12—SHARP & DOHME, INC., Philadelphia, Pa. You are invited to visit the technical display of one of the oldest exhibitors in the Nebraska Annual Assembly. Our technical experts want to meet the Nebraska doctors and will be glad to give you any information on our products.

Booth No. 13—LUZIER'S, Kansas City, Mo. Doctor, do you have any patients with cosmetic problems? If you do we want to help in any way possible, and to work with you in our field for the benefit of your patient. A visit to our booth will give you all of our detailed information.

Booth No. 14—PHILIP MORRIS & CO., LTD., INC., New York. Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representatives will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

Booth No. 15—HAROLD DIERS & CO., Omaha, Nebr. We want every doctor in Nebraska to be familiar with our group plan on accident and health insurance. Under the group buying power of the members of The Nebraska State Medical Association you can buy more and better protection at a lower cost. Visit our booth for complete details.

Booth No. 16—G. D. SEARLE & CO., Chicago. Will show a number of products of Searle Research which have contributed so much to the armamentarium of the physician, including Searle Aminophyllin, Metamucil, Ketochol, Floraquin, Diodoquin, Pavatrine, Pavatrine with Phenobarbital, Gonadophysin, and Tetrathione. Featured will be the new Aminophyllin Supposicones, the Searle brand of Aminophyllin Suppositories, which remain stable at temperatures up to 130° F., but which liquify readily under conditions of use.

Booth No. 17—WESTINGHOUSE ELECTRIC CORPORATION, Omaha, Nebr. The Westinghouse X-Ray Division will not exhibit x-ray equipment in their space but will show a few items of interest and have a place to meet their customers. The booth will be attended by Mr. C. F. Dickinson, Mr. D. C. Humason, and Mr. D. K. Jones.

Booth No. 18—ORTHO PHARMACEUTICAL CORPORATION, Raritan, New Jersey. You are invited to visit our booth where we will exhibit our well known line of Genecic Pharmaceuticals. Samples and literature will be available on request.

Booth No. 19—NUTRITION RESEARCH LABORATORIES, Chicago. We will exhibit Pendarvon Granules, a palatable source of amino acids and vitamins of the B complex—Ertron—Steroid Complex, Whittier in both oral and parenteral forms—Infron Pediatric in rickets prophylaxis—Bezon, Whole Vitamin B Complex with Vitamin C. Literature describing all products plus samples will be available at our booth for distribution to members and guests of the Association.

Booth No. 20—GERBER PRODUCTS COMPANY, Fremont, Mich. We deeply appreciate the opportunity to show Gerber's Baby Foods which are specially prepared for America's most important people, "The Physician's Youngest Clientele." Ready to serve baby cereals, strained foods, and chopped junior foods, all exceptionally rich in vitamins and minerals, will be featured professionally.

Booth No. 21—W. B. SAUNDERS CO., Philadelphia, Pa. This company will exhibit the complete line of their books including Hyman's "Integrated Practice of Medicine," Bockus' "Gastro-enterology," Lyons & Woodhall's "Atlas of Peripheral Nerve Injuries," Rubin's "Diseases of the Chest," Cooke's "Allergy," Allen, Barker & Hines' "Peripheral Vascular Diseases," Jackson & Jackson's "Diseases of the Ear, Nose and Throat," new editions of Wechsler's "Clinical Neurology," Novak's "Gynecologic and Obstetric Pathology," Cecil's "Medicine," and many others.

Booth No. 22—PHEBUS SURGICAL COMPANY, Omaha; Nebr. Once again The Phebus Surgical Company, of Omaha, is glad to exhibit new equipment, instruments, and the latest drugs to the doctors of Nebraska.

Booths Nos. 23 and 24—THE COCA-COLA COMPANY, Atlanta, Ga. We are again happy to have the opportunity of serving Coca-Cola to our friends of the Nebraska State Medical Association. While away a moment between scientific presentations, or meet your old friends at our Coca-Cola bar.

Booth No. 25—LEDERLE LABORATORIES DIVISION, New York. Lederle Laboratories will have on display the new Folic Acid products about which there has been so much interest. Among the products to be shown will be Folvite-Lederle's brand of Folic Acid, Folvron—Folic Acid and Iron, by which both iron deficiency anemias and macrocytic anemias may be treated. Ledinac, the first protein hydrolysate to be derived from liver, as well as interesting high-potency penicillin products will also be on display.

Booth No. 26—SCHERING CORPORATION, Bloomfield, New Jersey. The Schering booth will feature the potent oral estrogenic hormone, ESTINYL, the oral progestin, PRANONE, and the oral androgen, ORETON-M. The new effective treatment for ophthalmic infections, SODIUM SULFACETIMIDE SOLUTION 30% will be of interest as will be the clinically safer sulfonomide combination COMBISUL-TD and the radiographic media PRIODAX and NEO-IOPAX. Schering professional service representatives will be present to welcome physicians' inquiries.

Booth No. 27—THE KELLEY-KOETT MFG. CO., Covington, Ky. The American Electric Mobile Unit being displayed is an ideal unit for radiography and fluorascopy in the office, clinic or hospital. It requires very little space, is inexpensive, and contains a unique Powerhead offering an entirely new concept in x-ray service. It incorporates a replaceable cartridge eliminating the need for a service man.

Booth No. 28—A. S. ALOE COMPANY, St. Louis, Mo. The A. S. Aloe Co. will be pleased to welcome guests at booth No. 28 where they will show a cross section of the complete surgical, hospital, and laboratory and physio-therapy equipment and supplies. Featured will be a large selection of selected government surplus items carefully purchased by A. S. Aloe buyers, Aloe guaranteed and at savings of up to 75%.

Booth No. 29—M & R DIATETIC LABORATORIES, INC., Columbus, Ohio. We will again display Similac, a food for infants deprived either partially or entirely of breast milk. Mr. B. C. Palmer will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

Booth No. 30—CROSBY SURGICAL CO., Omaha, Nebr. Exhibited will be the usual supplies and equipment from the better manufacturers. We will have a complete line on display and will appreciate the opportunity of discussing your needs with you.

Booths Nos. 31 and 32—DONLEY STAHL COMPANY, Lincoln, Nebr. We will have a representative display of surgical, hospital and laboratory supplies. Old friends and new are cordially invited to visit our booth.

Booth No. 33—MEAD JOHNSON & COMPANY, Evansville, Ind. "Servamus Fidem" means "We Are Keeping the Faith." Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials—including the new precooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive company offers to physicians. A visit to our booth will be time well spent.

Booth No. 34—LANTEEN MEDICAL LABORATORIES, INC., Chicago. This manufacturer will exhibit the new improved LANTEEN FLAT SPRING DIAPHRAGM, natural and synthetic estrogenic hormone products, including ESTROGEL, HEXYPHEEN and HEXESTROL (Lanteen), as well as VI-TEENS Products. Included in their VI-TEENS display are VI-TEENS HOMOGENIZED VITAMINS and FERRELEX.

Booth No. 35—ULMER PHARMACAL COMPANY, Minneapolis, Minn. You are cordially invited to visit our display of Ulmer Pharmaceutical Specialties. Mr. Merle Else will welcome an opportunity to tell you about them.

Booths Nos. 36 and 37—PHYSICIANS AND HOSPITALS SUPPLY COMPANY, Minneapolis, Minn. We extend you a cordial invitation to visit our exhibit. Mr. Joseph R. Carey and Mr. Charles Majors will be glad to show you the many new and interesting items which we will have on display, including a fine selection of Swedish and American stainless steel instruments.

Booth No. 40—SWIFT & COMPANY, Chicago. Swift & Co. are exhibiting their new all meat baby foods, Swift's Meats for Babies and Juniors. You may sample and examine strained or diced meats in six varieties—beef, lamb, veal, pork, heart, and liver. These high protein foods are also useful in special adult diets. Literature will be available.

MINUTES OF BOARD OF COUNCILORS, N.S.M.A.

February 16, 1947

The Annual Mid-Winter Meeting of the Council was held at the Hotel Cornhusker, Lincoln, Nebraska, February 16, 1947, and was called to order at ten o'clock by Dr. Clayton Andrews, President of the Council.

The following members were present: Drs. Warren Thompson, Clayton Andrews, W. E. Shook, G. E. Peters, C. W. Way, A. A. Ashby, O. W. French, M. O. Arnold, J. B. Redfield, Geo. W. Pugsley, President Earle Johnson, President-Elect G. E. Charlton, and Immediate Past-President Chas. McMartin.

Also present were Drs. J. D. McCarthy, R. B. Adams, H. M. Jahr, E. W. Hancock, W. S. Petty, H. S. Morgan, Geo. W. Covey, J. F. Kelly, Floyd Rogers, W. H. Heine, R. K. Johnson, Harold C. Lueth, A. J. Offerman, R. W. Fouts, J. Bixby, J. D. Bradley, and Mr. M. C. Smith, Executive Secretary, and Mr. F. C. Asmus, representative of The Huse Publishing Company.

The election of a President of the Council was the first order of business.

Dr. Clayton Andrews was nominated, and a motion was made by Dr. G. E. Peters that the nominations be closed and the secretary cast the unanimous ballot for Dr. Andrews as President of the Council. The motion was seconded by Dr. W. E. Shook, and carried.

The election of Secretary of the Council was the next order of business, and Dr. C. W. Way was nominated.

A motion was made and seconded that the nominations be closed and the secretary cast the unanimous ballot for Dr. Way as Secretary of the Council. The motion carried.

Dr. Adams made the announcement that dinner would be served at 12:30 in the Lancaster Room.

A motion was made by Dr. G. E. Peters that the reading of the minutes be dispensed with and that they stand approved as published. The motion was seconded and carried.

Dr. Adams read requests for honorary memberships for Drs. Morris Margolin and C. W. M. Poynter of the Omaha-Douglas County Medical Society; for Drs. Frank B. Johnson, A. P. Furgason, H. J. Lehnhoff and Frederick F. Teal of the Lancaster County Medical Society; for Dr. H. J. Newell of the Thayer County Medical Society.

A motion was made by Dr. M. O. Arnold that the names of Drs. Morris Margolin, C. W. M. Poynter, Frank B. Johnson, A. P. Furgason, H. J. Lehnhoff, Frederick F. Teal, and H. J. Newell be recommended to the House of Delegates for Honorary Membership. The motion was seconded and carried.

Dr. R. B. Adams read communications from Drs. Juul Nielsen and A. H. Fechner relative to legislative matters. No action was taken by the Council.

The report of committees was the next order of business, and the report of the Insurance Committee was read by Dr. D. B. Steenburg.

A motion was made by Dr. Warren Thompson that the report be accepted and published. The motion was seconded and carried.

Dr. R. W. Fouts read the report of the Medical-Legal Advice Committee.

A motion was made by Dr. J. B. Redfield that the report be accepted and placed on file. The motion was seconded by Dr. G. E. Peters and carried.

Dr. Floyd Rogers read the report of the Planning Committee and also the report of the North Central Conference.

A motion was made by Dr. J. B. Redfield that the report of the Planning Committee be accepted and published. The motion was seconded by Dr. M. O. Arnold and carried.

General discussion by Drs. Redfield, Fouts, Rogers, Kelly, Offerman, Jahr, Peters and Pugsley followed relative to fee schedules used by different agencies and county societies at the present time.

A motion was made by Dr. Redfield that the proposed fee schedule as adopted by the House of Delegates in May, 1946, serve as a pattern for all governmental agencies until a future schedule is adopted. The motion was seconded by Drs. G. E. Peters and Geo. W. Pugsley, and carried.

A motion was made by Dr. M. O. Arnold that the report of the delegate to the North Central Conference be accepted and published. The motion was seconded by Dr. Geo. W. Pugsley and carried.

The report of the Journal and Publication Committee was called for and Dr. H. M. Jahr, Editor, stated he had nothing further to report than was in the printed brochure.

A motion was made by Dr. G. E. Peters that the report be accepted and published. The motion was seconded by Dr. W. E. Shook and carried.

A motion was made by Dr. W. E. Shook that the report of the F.S.A. Committee as printed in the brochure be accepted and published. The motion was seconded and carried.

The report of the M.C.H. Committee was next called for and Dr. H. S. Morgan read a supplemental report to the Council in addition to the printed M.C.H. report.

Discussion was called and Dr. R. W. Fouts asked that Mr. M. C. Smith discuss legislation now pending in the state legislature. Mr. Smith gave a brief summary of bills pending affecting the practice of medicine.

A motion was made by Dr. G. E. Peters that the M.C.H. report be accepted and published. The motion was seconded by Dr. C. W. Way and carried.

Dr. Harold Lueth, new Dean at the University of Nebraska College of Medicine, was introduced to the Council by Dr. Clayton Andrews.

The report of the Cancer Committee was called for and Dr. James F. Kelly stated he had nothing further to add to the report. He stated, however, that additional information had been received relative to federal grants and that the budget for our Nebraska division of the American Cancer Association amounted to about $40,000.00, and that this has all been budgeted very carefully by the Cancer Committee and the group that sits on the board with the Cancer Society. $4,000.00 was budgeted to the Nebraska Cancer Research and Educational Society, and that two grants of $500.00 each for research have been set up by this group.

A motion was made by Dr. W. E. Shook that the report of the Cancer Committee be accepted and published. The motion was seconded by Dr. G. E. Peters and carried.

Dr. R. K. Johnson read the report of the Arthritis Committee.

A motion was made by Dr. Warren Thompson that the report be accepted and published. The motion was seconded by Dr. C. W. Way and carried.

Dr. Geo. W. Covey read the report of the Board of Trustees.

A motion was made by Dr. G. E. Peters that the report be accepted, the budget as proposed be recommended for approval to the House of Delegates, and that the report be published. The motion was seconded by Dr. Warren Thompson and carried.

Dr. R. B. Adams read the report of the Secretary-Treasurer and called attention to the Audit as printed in the reports.

A motion was made by Dr. Geo. W. Pugsley that the report of the Secretary-Treasurer be accepted and published. The motion was seconded by Dr. M. O. Arnold and carried.

Report of the Delegate to the A.M.A. was called for and Dr. J. D. McCarthy stated he had nothing further to report than that printed for the Councilors. He did, however, call attention to the recommendation in his report relative to increasing the number of Fellows of the A.M.A. among the Nebraska membership and suggested publicity be given through the Nebraska State Medical Journal to a campaign to increase this membership.

A motion was made by Dr. W. E. Shook that the report be accepted and published. The motion was seconded by Dr. J. B. Redfield and carried.

The President of the Council asked Dr. Earle Johnson if he had any announcements to make relative to affairs of the Nebraska State Medical Association. Dr. Johnson stated he had no report to make at this time but that he did want to thank all members of the committees for their help and to especially thank Dr. Chas. McMartin for his advice and support.

Dr. Offerman gave a supplemental report to the printed report of the Committee on Prepayment Medical Care.

General discussion relative to the public relations program which the Blue Cross and Blue Shield Plans are starting followed, and it was urged that every means be used to publicize these plans both to the profession and the laity—and to see that the doctors were especially well informed.

A recess was called by the President and dinner followed.

The meeting was again called to order by Dr. Clayton Andrews, President of the Council.

Dr. W. S. Petty, who was recently reappointed by Governor Peterson as Director of the Department of Health, State Capitol, was introduced to the Council by the chair.

Attention was called to the reports of the following committees whose reports were printed in the brochure sent each Councilor: Speakers Bureau, Industrial Health, Convalescent Serum, Venereal Disease, Public Health, and Dr. K. S. J. Hohlen's report of Delegate to A.M.A.

A motion was made by Dr. Warren Thompson that these reports be accepted and published. The motion was seconded by Dr. G. E. Peters and carried.

Dr. G. E. Charlton, President-elect, read the committee appointments for next year.

A motion was made by Dr. O. W. French that the appointments as made by Dr. Charlton for the committees in 1947 be approved. The motion was seconded by Dr. M. O. Arnold and carried.

The report of the Executive Secretary was called for and in addition to Mr. Smith's printed report he gave a brief review of all legislative matters and bills now before the legislature; he also urged that alll members read the state medical journal and the organization section of the A.M.A.

A motion was made by Dr. G. W. Pugsley that the report of the Executive Secretary be accepted and published. The motion was seconded by Dr. G. E. Peters and carried.

General discussion relative to annual association dues followed.

A motion was made by Dr. G. E. Peters that the Council recommend to the House of Delegates that we delete the phrase in Chapter XII Assessments and Expenditures, Section 1, "for the duration of the war and one year thereafter, except as otherwise provided." The motion was seconded by Dr. G. W. Pugsley and carried.

A motion was made to adjourn which was seconded and carried.

1946 ANNUAL AUDIT AND COMMITTEE REPORTS

Nebraska State Medical Association

SECRETARY'S REPORT

R. B. Adams, M. D.

With an association organized and functioning as the Nebraska State Medical Association does a report from the Secretary-Treasurer will either of necessity be short and describe affairs generally, or be a copy of other reports such as those of committee chairmen, the Executive Secretary, and others. The latter would make a longer report but probably would not be as valuable as the separate reports made by the persons in charge of each particular work. The Secretary's report, therefore, will be short.

Our membership this year reached 1,118 members. This was a gain of 38 over the year 1945. Also during the year almost all of our members who served in the armed forces returned from service and are again active members.

The financial affairs are still in their same prosperous condition of the last several years. The total income for 1946 was $34,859.57. $15,765 of this came from dues, $3,558.50 from the annual session, and $14,921.34 from the journal. The total expense for 1946 was $34,100.27 and of this $16,227.81 was for general running expenses. $16,697.46 was for journal expense and $1,175.00 was invested. The details explaining the above figures will be found in the accompanying auditor's report. The figures also show that our income exceeded our total expense by $759.30. This amount added to our investment gives us a total of $1,934.30 as money collected and not spent. This, in your Secretary's opinion, is a very healthy condition. After an association of our kind has accumulated a sufficient reserve, it should not try to save money. In normal times we have that amount, but times are not normal and no one is now sure what can be called a proper amount. So it probably is best to be as near the safe side as possible. Also, due to the fact that a part of the savings comes from journal advertising and due to the fact that we can never be sure what the future journal income will be, the association should not budget too closely at present.

It would appear that the Student Loan Fund, described in Exhibit D of the auditor's report, should have something done about it. This is a fund that has been inactive for several years and may never be needed again. There is a deposit in the name of this fund in the amount of $3,253.44 lying idle in a bank and has been so for some time. It is suggested that this money be invested and made to earn an income. If it should ever be needed for its original purpose, it could still be so used.

The committees of the association fall into two classes—those that did excellent work and those that did none. However, many of those that did not work have had nothing develop for them to do. The Secretary wishes to commend in particular the Committees on Medical Service, Insurance, Medical-Legal Advice, Maternal and Child Health, Cancer, Planning, Prepayment Medical Care and the Scientific Assembly Committee. The committees have all done excellent work as can be judged from their individual reports.

The Annual Assembly, the first held after the war years, was well attended and judging from comments received, the scientific program was considered an excellent one. There was the largest number of commercial exhibits in our history.

The following guests appeared on the program:

Dr. L. A. Calkins, Kansas City, Missouri
Dr. A. A. Curtis, Ann Arbor, Michigan
Dr. George M. Curtis, Columbus, Ohio
Dr. Rex L. Diveley, Kansas City, Missouri
Dr. Larry P. Engle, Kansas City, Missouri
Dr. George B. Eusterman, Rochester, Minnesota
Dr. E. C. Hamblen, Durham, North Carolina
Maj. General Paul R. Hawley, Washington, D. C.
Dr. Elmer Hess, Erie, Pennsylvania
Dr. Roger J. L. Kennedy, Rochester, Minnesota
Dr. Alfred R. Shands, Wilmington, Delaware

TREASURER'S REPORT

R. B. Adams, M.D.

Lincoln, Nebraska
January 16, 1947.

Nebraska State Medical Association,
Lincoln, Nebraska.

Gentlemen:

We have examined the books and records of the Nebraska State Medical Association for the year 1946 and submit herewith our report. Included in the report are the following exhibits and schedules.

Exhibit A—Analysis of Fund Balances—January 1, 1946 to December 31, 1946.

Exhibit B—Statement of Receipts and Disbursements—Year 1946.

Schedule B-1—Statement of Receipts and Disbursements, Annual Session—Year 1946.

Schedule B-2—Comparison of General Expense with Budget—Year 1946.

Exhibit C—Statement of Investments—January 1, 1946 to December 31, 1946.

Exhibit D—Journal Accounts Receivable—December 31, 1946.

EXHIBIT A

Exhibit A is the analysis of fund balances. During the year 1946 there was an increase in the balances of $2,285.55. The total balance on December 31, 1946 was $26,567.64 and was represented by cash in the National Bank of Commerce, Lincoln, Nebraska of $3,866.31 and investments of $22,701.33.

EXHIBIT B

The details of the changes in the operating fund cash balance are shown in Exhibit B. In this statement the incomes and expenses have been divided into classifications of General items and Journal transactions. Under the heading of General income the principal items were Membership Dues of $15,765.00 and income from the Annual Session of $3,558.50. The chief item of income for the journal during the year was Advertising of $14,921.34. Total cash received during the year amounted to $34,859.57.

The disbursements of the Association are divided into the same classifications as are the receipts. The total amount of general disbursements was $16,227.81. A comparison of these items with the budget items approved for 1946 is shown on Schedule B-2. Journal expenses for the year totaled $16,697.46. During the year cash in the amount of $1,175.00 was invested in United States Savings Bonds. Total disbursements for the year were $34,100.27. The excess of receipts over disbursements amounted to $759.30 and the cash on hand at the close of the year was $3,866.31.

All receipts for the year were traced through the books and into the bank account by us. In addition, test checks were made of letters of transmittal tracing the items to the individual members' accounts. An inspection of the unused members cards in connection with our examination of the receipts indicated that all cards issued to members during the year were accounted for on the books of the Association. It was also found that during the year 1946 cards were issued to thirty-seven military members and thirty honorary members for which no dues were collected.

All cancelled checks for the year were inspected and compared with the items in the check record. Invoices and creditors' statements were examined covering the greater portion of the disbursements. Balances shown as cash in bank were confirmed by direct correspondence with the depositories. Our audit also included an examination of the minutes of the Trustees' meetings during the year in regard to authorization of salaries, budgets and other disbursements. All securities were verified by actual examination. As a result of our audit of the receipts and disbursements of the Association for the year, it is our opinion that all cash has been accounted for properly.

EXHIBIT C

The changes that occurred in the investment account during the year are shown in Exhibit C. The cost value of the investments at the beginning of the year was $21,175.08. During the year there was a net addition in investments of $1,526.25. Dividend credits in building and loan accounts amounted to $106.77. The increase in value of United States Savings Bonds on hand at the close of the year totaled $243.48. During the year United States Savings Bonds, Series G, of $3,500.00 were purchased. Matured bonds of $2,325.00 were exchanged for these and the balance of $1,175.00 was paid in cash. At the date this report was written, confirmation of funds of the United Savings and Loan Association had not been received. The total value of the investments on December 31, 1946 was $22,701.33.

EXHIBIT D

Exhibit D is a list of the journal accounts receivable. Our examination of the accounts receivable record indicates that the greater part of these accounts are amounts receivable for advertising during the month of December 1946. This record also indicated that with few exceptions these accounts are being paid currently. As the Association operates on the cash basis, these items are not taken into income until cash is received.

The student loan fund managed by the Association is maintained in a checking account in the Omaha National Bank, Omaha, Nebraska. Cash on hand at the close of the year amounted to $3,253.44. This amount was confirmed to us by direct correspondence with the bank. The total amount of unpaid student loans at the end of the year was $920.15. During the year $128.57, including payments on principal and interest, was received on these notes.

Mr. M. C. Smith, Executive Secretary of the Association, has in his possession a fund of $100.00 to be used for traveling and other Association expenses. This fund is replenished periodically upon his presentation of expense reports and is not carried on the books of the Association as an asset.

There are additional funds of $1,000.00 in cash kept in the Association's safety deposit box at the National Bank of Commerce, Lincoln, Nebraska. This amount was verified by actual count at the time of the examination of the securities and is not set up on the books as an asset. The purpose of this fund is to defray expenses of the Association and to date none of it has been used.

Should any additional information be desired concerning any matters falling within the scope of our examination, we shall be pleased to supply it upon request.

Respectfully,
MARTIN & COLE.

EXHIBIT A—

NEBRASKA STATE MEDICAL ASSOCIATION
ANALYSIS OF FUND BALANCES

January 1, 1946 to December 31, 1946

Total Balance, January 1, 1946		$24,282.09
Represented by:		
Cash—National Bank of Commerce	$ 3,107.01	
Investments—Exhibit C	21,175.00	
	$24,282.09	
Add:		
Net Additions in Investments—Exhibit C	1,526.25	
Excess of Receipts over Disbursements—Exhibit B	759.30	2,285.55
Total Balance, December 31, 1946		$26,567.64
Represented by:		
Cash—National Bank of Commerce	$ 3,866.31	
Investments—Exhibit C	22,701.33	
	$26,567.64	

EXHIBIT B—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF RECEIPTS AND DISBURSEMENTS

Year 1946

Cash on hand, January 1, 1946		$ 3,107.01
Receipts:		
General:		
Membership dues	$15,765.00	
Interest collected	196.47	
Annual Session—Sched. B-1	3,558.50	
Child Health Survey	300.00	
Addressing envelopes	4.00	$19,823.97
Journal:		
Advertising	14,921.34	
Subscriptions	103.75	
Copies sold	10.51	15,035.60
TOTAL RECEIPTS		$34,859.57
Disbursements:		
General:		
Salaries	$ 7,230.00	
Travel	1,136.14	
Office expense:		
Rent	793.41	
Telephone and telegraph	443.56	
Printing	300.10	
Postage	185.20	
Mimeograph	33.03	
Miscellaneous	185.79	
Councilor expense	192.60	
Delegate to A.M.A.	994.26	
Committee expense	121.62	
Audit expense	100.00	
Medicolegal	624.75	
Attorney fees	190.00	
President's expense	196.45	
Office equipment	55.00	
Annual Session—Sched. B-1	3,445.90	16,227.81
Journal:		
Salaries	1,440.00	
Commissions	5,576.59	
Publication expense	6,413.57	
Envelopes and inserts	258.21	
Press clipping service	60.00	

Color	2,310.00		
Tipping	268.10		
Cuts	128.97		
Miscellaneous	242.02	16,697.46	
Purchase of U. S. Savings—Series G less bonds exchanged		1,175.00	
TOTAL DISBURSEMENTS		34,100.27	
EXCESS OF RECEIPTS OVER DISBURSEMENTS			$ 759.30
Cash on hand, December 31, 1946			$ 3,886.31

SCHEDULE B-1—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF RECEIPTS AND DISBURSEMENTS
ANNUAL SESSON—YEAR 1946

Receipts:			
Exhibits		$ 2,785.00	
Banquet		772.50	
Miscellaneous		1.00	3,558.50
Disbursements:			
Printing		187.46	
Badges		28.95	
Booths		290.00	
Night watchman		30.00	
Gratuities (gifts, tips, etc.)		204.30	
Lunches—Employees		9.90	
Lantern, projector, screen rental and operator		76.50	
Reporter		242.68	
Picture frame		1.25	
"Crying Room"		24.30	
Exhibitors party		204.18	
Trap shoot and golf meet		131.27	
President's party		37.00	
Party supplies		218.30	
Banquet:			
Entertainment	$ 65.00		
Flowers	29.00		
322 dinners	805.00	899.00	
Guests:			
Transportation	680.42		
Luncheon and dinner tickets	20.45		
Rooms	155.14		
Flowers for rooms	5.00	860.81	3,445.90
EXCESS OF RECEIPTS OVER DISBURSEMENTS			$ 112.60

SCHEDULE B-2—

NEBRASKA STATE MEDICAL ASSOCIATION
COMPARISON OF GENERAL EXPENSE WTH BUDGET
YEAR 1946

	Budget	Actual Expense	Unexpended Balance
Salaries	$ 7,375.00	$ 7,230.00	$ 145.00
Travel	1,150.00	1,136.14	13.86
Office expense:			
Rent	800.00	793.41	6.59
Mimeograph	75.00	33.03	41.97
Printing	350.00	300.10	49.90
Postage	200.00	185.20	14.80
Telephone	500.00	443.56	56.44
Miscellaneous	250.00	185.79	64.21
Councilor expense	200.00	192.60	6.40
Delegate to A.M.A.	1,000.00	994.26	5.74
Annual session	3,445.90	3,445.90	--------
Committee expense	125.00	121.62	3.38
Audit expense	100.00	100.00	--------
Medicolegal	800.00	624.75	175.25
Emergency fund	4.10	--------	4.10
Attorneys' fees	225.00	190.00	35.00
Office equipment	125.00	55.00	70.00
President's expense	500.00	196.45	303.55
	$17,225.00	$16,227.81	$ 997.19

EXHIBIT C—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF INVESTMENTS

January 1, 1946 to December 31, 1946

Total Balances January 1, 1946				$21,175.08
Consisting of:				
Omaha Loan & Building Assn.			$ 1,679.61	
Nebraska Central Building & Loan Assn.			902.63	
Conservative Savings & Loan Assn.			1,430.60	
United Savings & Loan Assn.			795.07	
U. S. Treasury 2¾%			400.00	
U. S. Treasury Bonds 2⅞%			4,500.00	
U. S. Treasury Bonds 3%			500.00	
U. S. Treasury Bonds 3⅛%			150.00	
U. S. Savings Bonds—Issue Price, $8,677.25; Maturity value $11,650.00			9,661.17	
U. S. Savings Bonds—Series G			1,100.00	
Postal Savings Bond—Issue Price $50.00			56.00	
			$21,175.08	
Additions:				
Dividend Credits:				
Omaha Loan & Bldg. Assn.		$ 50.75		
Conservative Savings & Loan Assn.		28.74		
Nebr. Central Bldg. & Loan Assn.		27.28	106.77	
Increase in Value—U. S. Savings Bonds:				
Total Increment, December 31, 1946		908.65		
Total Increment—Bonds Exchanged		318.75		
		$1,227.40		
Total Increment December 31, 1945		983.92	243.48	
Interest Accrued—Postal Savings:				
Interest Accrued December 31, 1946		7.00		
Interest Accrued December 31, 1945		6.00	1.00	
Purchases:				
U. S. Savings Bonds—Series G		3,500.00		
Less: Bonds Exchanged:				
U. S. Savings Bonds—Series B	$1,275.00			
U. S. Treasury Bonds 2¾%	400.00			
U. S. Treasury Bonds 3%	500.00			
U. S. Treasury Bonds 3⅛%	150.00	2,235.00	1,175.00	1,526.25
Total Balance December 31, 1946				$22,701.33

EXHIBIT C—

NEBRASKA STATE MEDICAL ASSOCIATION
STATEMENT OF INVESTMENTS

January 1, 1946 to December 31, 1946

Consisting of:	
Omaha Loan and Building Association	$ 1,730.36
Nebraska Central Building and Loan Association	929.91
Conservative Savings and Loan Association	1,459.34
United Savings and Loan Association	795.07
U. S. Treasury Bonds 2⅞%	4,500.00
U. S. Savings Bonds—Issue Price $7,721.00; Maturity Value $10,375.00	8,629.65
U. S. Savings Bonds—Series G	4,600.00
Postal Savings Bond—Issue Price $50.00	57.00
	$22,701.33

EXHIBIT D—

NEBRASKA STATE MEDICAL ASSOCIATION
JOURNAL ACCOUNTS RECEIVABLE

December 31, 1946

Advertising Space:		
F. G. Hawxby		$ 4.68
Acousticon Institute		4.80
Cooperative Medical Advertising Bureau:		
Mead Johnson and Company	$116.80	
Parke, Davis and Company	113.56	
Julius Schmid	20.40	
Winthrop Chemical Company	20.40	
Philip Morris	20.40	
M & R	20.40	
Upjohn	20.40	
Abbott Laboratories	24.00	
Smith-Dorsey	41.48	
Camel Cigarettes	20.40	
Burroughs Wellcome Company	20.40	
Bristol Laboratories	23.46	
S. H. Camp	20.40	
Eli Lilly	118.40	
G. D. Searle	44.20	
Campbell Soups	25.50	
The Borden Company	23.46	
Schieffelin and Company	14.40	
Quincy X-Ray	4.08	
Seiler Surgical Company	4.08	
Pregnancy Diagnostic Laboratories	4.08	
Robinson Clinic	4.08	
Laboratory of Clinical Pathology	7.14	
Physicians Casualty Company	8.40	
Ralph Sanitorium	7.14	
Cook County Graduate School	7.14	
Physicians Optical Company	4.80	
Luzier's	27.60	
Ames Company	14.28	
Ayerst, McKenna and Harrison	37.40	839.40
Lincoln Splint and Brace Shop		3.25
Nutrition Research Laboratories		94.40
		$ 946.53
Less: Paid in Advance—H. S. Lames		8.00
Amount Due		$ 938.53

DO NOT FORGET

The Annual Session of the Association,
April 28 to May 1st.
Make Hotel Reservations Now!

REPORT OF THE BOARD OF TRUSTEES

Geo. W. Covey, M.D., Chairman
Lincoln

J. D. McCarthy, M.D., Omaha
D. B. Steenburg, M.D., Aurora
Harry W. Benson, M.D., Oakland
R. B. Adams, M.D., Lincoln

The Board of Trustees submits the following report of the financial condition of your association for the year 1946, together with a proposed budget for 1948, for your consideration and appropriate action.

The Board met and transacted the business of the association as required by the Constitution and By-Laws. There were no unusual transactions. Plans which we had laid for the purchase of certain new equipment were largely thwarted by the fact that most of the desired material was not available. The Board authorized Mr. Smith to purchase a lantern, a moving picture projector and such other equipment as is usually needed for the proper conduct of our Annual Assembly, as well as a machine for the taking of dictation of such type as might be deemed best for the use of Dr. Herman Jahr in his editorial work. The latter is the only item which has been purchased.

At the February meeting Mr. Asmus of the Huse Publishing Company was present to inform us that the cost of publishing the Journal had increased to the point that the Huse Publishing Company was losing money at the price previously agreed on. He desired to take advantage of the privilege granted in the contract to increase the price sufficiently to cover this loss. After proper investigation of the figures presented by him, a 5% increase in our contract price from March 1 to December 31, 1946, was agreed upon.

In November a new contract was made with the Huse Publishing Company which embraced a further increase in costs to us amounting to an additional 10%.

Rental on the space occupied by the association's offices was increased in September. We were unable to obtain a suitable lease because the building was sold while Mr. Smith was in the process of negotiation concerning same. The new management will probably ask further rent increase.

Regardless of constantly increasing costs along some lines, the association is in sound financial condition as you may see by referring to the report of the auditors which is in your hands. Schedule B-2 shows that the expenditures during the year have been within the budget, there being an unexpended balance of $997.19.

The statement of investments, Exhibit C, reveals that the value of our investments has increased by $1,526.25. This increase consists of dividend credits, increase in value of U. S. Savings Bonds, and cash in the amount of $1,175.00.

The financial condition of your Journal is, likewise, in excellent condition under the management of your Executive Secretary, Mr. M. C. Smith. This may be ascertained from Exhibits B and D of the auditor's report.

The Board of Trustees recommends the following budget for the year 1948 for your consideration and appropriate action:

Salaries	$ 7,500.00
Travel	1,000.00
Office expense:	
Rent	1,000.00
Mimeograph	200.00
Printing	350.00
Postage	350.00
Telephone	550.00
Miscellaneous	200.00
Council expense	200.00
Delegate to A.M.A., Editor, February meeting	1,000.00
Annual session	3,500.00
Committee expense	125.00
Audit expense	125.00
Dues, Share to Journal	2,000.00
Medical-Legal	800.00
Emergency fund	1,000.00
Attorneys' fees	1,000.00
Office equipment	200.00
President's expense	500.00
TOTAL	$21,600.00

Respectfully submitted,

GEORGE W. COVEY, Chairman,
Board of Trustees.

REPORT OF DELEGATES TO A.M.A.

95th Annual Assembly

J. D. McCarthy, M.D., Omaha
K. S. J. Hohlen, M.D., Lincoln

The Ninety-Fifth Annual Assembly of the House of Delegates of the American Medical Association was held at the St. Francis Hotel, San Francisco, California, July 1 to 5, 1946. To set forth all that was accomplished during the four days would require a voluminous report. Therefore, I would refer those interested in the complete details of the proceedings to the Journal of the American Medical Association, Volume 131, Pages 905-920 and Pages 984-1006, July 13 and July 20, 1946.

The first order of business was the election of a physician who, in the opinion of the Delegates, merited the Distinguished Service Award of the American Medical Association. Three names were presented, Drs. A. J. Carlson of Chicago, Torald Sollmann of Cleveland, and Francis Carter Wood of New York. Dr. A. J. Carlson received the majority of votes cast and was designated as the recipient of the Distinguished Service Award.

The next order of business was the address of the Speaker, Dr. Roy W. Fouts of Omaha, Nebraska. Dr. Fouts had served as the Nebraska delegate to the House of Delegates of the American Medical Association for twenty-four years, the last eight as Vice Speaker of the House, and was at this meeting serving as Speaker for the first time. Among the points made in his address were:

1. A reminder to the members of the House of Delegates of their responsibilities as delegates, and the necessity for an understanding of all reports and resolutions so that they could legislate in the best interests of the Association.

2. A proposal to change the method of balloting, using for the first time a prepared ballot and ballot box.

3. A suggestion that all resolutions to be considered at the sessions of the House of Delegates be submitted to the American Medical Association at least thirty days preceding the session at which they would be considered, so that they could be published in the Journal of the American Medical As-

sociation, thus permitting the Delegates to familiarize themselves with the contents.

Dr. Fouts then read the names of the members of the House of Delegates who would serve on the respective reference committees. Dr. Karl S. J. Hohlen was appointed to serve on the reference committee for amendments to the Constitution and By-Laws.

Dr. Fouts was commended from the rostrum by officers of the Association for the excellence of his report and the suggestions contained therein. All of his proposals were adopted.

The House then heard an inspiring address from the President, Dr. Roger I. Lee. He touched on the low morbidity and mortality during World War II, which he attributed to greater proficiency on the part of physicians rather than transfusions, new drugs, and antibiotics. He pointed out that the American Medical Association favored the development of the National Science Foundation, but stressed the possibilities that governmental control might develop under such a foundation, even by way of legislation such as the Wagner-Murray-Dingell bill. He urged all physicians to be ever watchful regarding pernicious legislation, and even though, as at present, there seemed to be a lag in the activities of those sponsoring socialistically inclined legislation, physicians should not be lulled to sleep. Dr. Lee lamented the fact that more physicians were not interesting themselves in civic affairs. He recognized that the life of a physician was busy and all absorbing, and accordingly unrelated to the political whirl that they might encounter in such fields. Because of the changing trends, he appealed to the younger physicians to interest themselves and take active part in civic matters, particularly in the problems of American Medicine as they relate to patient and government, so that the profession would not lack torch bearers in the years to come.

Dr. Lee ended his address with a quotation which was taken from a six hundred year old Scottish Parliament declaration, which I would like to quote for it is apropos of American Medicine's present day problems. "It is not for riches, glory or honor that we fight, but for that liberty that a good man loses but with his life."

President Elect H. H. Shoulders of Nashville, Tennessee, then addressed the House. His address was excellently received. After pointing out the interrelationship between the Association and the practice of medicine in the United States, he commented on voluntary payment medical service plans, statesmen versus politicians, and ended his address by urging "a re-dedication of all that we are to the principles which have made medicine great in this country."

The House next heard from Dr. George F. Lull, Secretary and General Manager of the American Medical Association. Dr. Lull had been appointed Associate General Manager of the American Medical Association by the Board of Trustees on January 1, 1946, and upon the retirement of Dr. Olin West as Secretary April 1, 1946, was appointed Manager and Secretary of the Association until the July 1946 meeting of the House of Delegates.

Dr. Lull gave a statistical report on Membership and Fellowship of the American Medical Association. He stated that the total membership on April 1, 1945 was 125,302, and on April 1, 1946, 126,835, a gain in twelve months of 1,533. Of the 126,835 members, 68,366 were Fellows. Of the 1,637 physicians in Nebraska, 1,103 were members of their county, state and national associations, 604 being Fellows.

The next order of business was a report from Dr. R. L. Sensenich, Chairman of the Board of Trustees. Dr. Sensenich read Dr. Olin West's resignation as Secretary and Manager of the American Medical Association, requesting that he be relieved of his duties on April 1, 1946. He pointed out that he had been Secretary and General Manager for the past twenty-four years, and that the increasing responsibilities of the office demanded a younger and more vigorous man. Having had the opportunity of observing Dr. Lull for some months as his assistant, Dr. West urged his appointment as Secretary of the American Medical Association. Dr. West expressed his appreciation to the Board of Trustees and all members of the Association for "their heartening encouragement and support, their forbearance and all their kindnesses, and for the great privilege of having had an opportunity to serve in an effort to promote the 'aims and objects' of our Society."

Dr. Sensenich then commented on the services of Mr. Will C. Braun, who retired after having served fifty-four years with the American Medical Association. He was designated as Business Manager Emeritus. Under Mr. Braun's able management the circulation of the Journal of the American Medical Association grew from 3,500 copies in 1891 to 112,510 in 1945. The Board of Trustees in the name of the American Medical Association tendered their sincere and grateful appreciation to Mr. Braun for his many years of splendid service.

The Chairman of the Board then stated that on January 1, 1946, the American Medical Association had 548 employees on a full and part time basis, and by May 1, 1946, 597. The Association is still undermanned, but it is believed that their employment problems will be righted in a short time due to many returning from service.

Dr. Sensenich then took up the report of the Treasurer of the Association and commented from the auditors' report. Interesting highlights from this report were that in 1945 the net income of the Association was $990,708.81, compared with $933,091.34 in 1944, or an increase of $57,617.47. Wages and salaries paid in 1945 totaled $1,342,149.45 or $86,748.61 more than in 1944. The increase was due to greater activities of the Councils, Bureaus and Committees. The cost of publication of the Association's periodicals published in 1945 amounted to $1,808,381.36, an increase of $77,980.66 over 1944. This increase was due for the most part to higher wages and paper costs. Income from subscriptions to periodical publications totaled $1,332,631.22 in 1945, and advertising income amounted to $1,920,465.58. Dr. Sensenich then commented on the Journal and special journals published by the American Medical Association. It is interesting to note that of the 1,637 Nebraska physicians, 901 (55 per cent) receive the Journal, which ranks them eighteenth amongst the States of the Union as subscribers.

In succession Dr. Sensenich commented on the Association's library, especially as it related to the package library; the Quarterly Cumulative Index Medicus; the Cooperative Medical Advertising Bureau (about which you will probably hear more in our Executive Secretary's report), the Council on Pharmacy and Chemistry, the Council on Physical

Medicine, the Council on Foods and Nutrition and the Council on Industrial Health. He then gave a complete report on the activities of the Bureau of Health Education, the Bureau of Investigation, and the Bureau of Exhibits, the Bureau of Public Health, the Bureau of Information, and a lengthy detailed report on the activities of the Bureau of Legal Medicine and Legislation, which had been doing such a splendid job in handling federal legislation having to do with federal hospital building programs, legislative bills dealing with the prevention of disease, national mental health, medical care of veterans, antivivisection, and other bills introduced by members of the Congress of the United States.

The report of the Board of Trustees, through its Chairman Dr. Sensenich, was constructive and most complete, and indicated a tremendous amount of work and study on the part of the Board, both individually and collectively.

The next matter of business was the auditor's report, which was unanimously accepted as read. The capital account stood at $4,738,180.42 December 31, 1944. This amount plus a net income of $990,708.81 accrued during the year 1945, left a total capital account of $5,728,889.23 on December 31, 1945. It showed that the Association on December 31, 1945, had a net worth of $7,353,889.23. The statement reflects the healthy financial condition of the Association.

Reports from the Judicial, Medical Education and Hospitals, Scientific Assembly, and Medical Service and Public Relations Councils were read by the respective chairmen. All reports were very complete and far reaching in their scope, treating on such subjects as the supply of premedical and medical students, residencies for returning medical officers, approval of residencies, appointment of interns, hospital service in the United States, residencies in Army and Navy hospitals, Hill-Burton Hospital Survey and Construction bill, National Society for Medical Research, new medical schools, prepayment medical care program, National Health Congress, rural health, regional conferences, the Washington office of the Council on Medical Service, and many other topics.

On Monday afternoon, July 1st, under New Business, resolutions were read and referred by the Speaker to the respective reference committees. I shall refer to the resolutions by name only: Health organization of the United Nations, national safety, S 1606, national bituminous wage agreement, development of prepayment medical care plans, insurance against the loss of wages during sickness, promotion of national health, medical care of veterans, automobile priorities for physicians, notification of appointment of reference committees, medical service and public relations, proposed amendment to By-Laws, licensure of honorably discharged medical officers without examination, publication of programs of specialized groups who meet immediately prior to and following the annual sessions of the American Medical Association, full time state headquarters offices, change in federal workmen's compensation act, revision of principles of medical ethics, and one protesting the action of the chairman of the Senate committee in refusing the West Virginia State Medical Association permission to appear before a senatorial committee, hearing evidence on legislation affecting the health and welfare of all citizens of the United States. A resolution was presented regarding the activities of the Editor of the Journal, which was referred to the Board of Trustees. It was later withdrawn.

Surgeons General Kirk of the Army and McIntyre of the Navy addressed the House. General Kirk thanked the physicians of the United States for their excellent support and the job done during World War II. He stated that the Medical Corps of the Army is at this time undermanned.

General McIntyre outlined the Navy five year plan for the training of medical officers, which included special training for those desiring to specialize and take examinations for certification by specialty boards.

On Tuesday, July 2nd, reports from the reference committees to which the aforementioned resolutions had been submitted were read and acted upon. The resolution pertaining to the change in name of the Council on Medical Service and Public Relations to the Council on Medical Service was unanimously adopted. The triennial reapportionment of state delegates to the House of Delegates of the American Medical Association was completed. This apportionment of delegates is made according to the respective state census of physicians. This did not in any way affect Nebraska, our state still maintaining its two delegates. For details consult the minutes as published in the Journal.

The House recessed at 3:35 p.m. to go into Executive Session to consider the report of the reference committee on Executive Session and the report of the Board of Trustees on the survey of public relations, better known as the Rich Report.

This report had been received by the Board of Trustees a few days before the House of Delegates convened. The report was based on an overall study of American Medical Association functions and policies. Dr. Sensenich, Chairman of the Board of Trustees, mentioned some of these but pointed out that others were of such nature that without further study it was felt inadvisable to read the whole report. He further stated that the report would be digested by the Board of Trustees and Council members before the supplemental meeting of the House of Delegates to be held in December 1946. He stated that at that meeting the entire report would be considered section by section. This was not accepted too kindly by some of the members of the House, they feeling that information to which they were entitled was being withheld. Dr. Sensenich again explained that reading certain sections of the report without having had an opportunity for complete study would jeopardize the best interests of the American Medical Association. It was finally decided to table the report as a whole until it could be taken up and discussed section by section at the supplemental meeting to be held in December 1946.

The Board of Trustees also considered a resolution having to do with the setup of the Washington office. Most of the items referred to in this particular resolution had already been cared for. The first had to do with securing "the most competent and experienced legislative representative that can be found to represent the Association at Washington, D. C." It was pointed out that the House of Delegates had already gone on record as opposing the creation of anything which would smack of a lobby in Washington. The resolution was not adopted.

The next meeting of the House of Delegates was held Thursday afternoon, July 4th. Reports of reference Committees were read. By unanimous consent the House of Delegates then received resolutions which had not been previously offered. Amongst these was one by Dr. Lowell S. Goin of California, who moved that the Speaker of the House of Delegates appoint a committee to consider the revision and rewriting of the Constitution and By-Laws of the American Medical Association, this committee to report at the next session of the House of Delegates. The motion was carried.

This was followed by election of officers. The nominations were as follows:

Dr. Olin West, Nashville, Tennessee, President Elect
Dr. Edward L. Bortz, Philadelphia, Vice President
Dr. George F. Lull, Chicago, Secretary
Dr. Josiah J. Moore, Chicago, Treasurer
Dr. Roy W. Fouts, Omaha, Speaker; Dr. Lowell S. Goin, Los Angeles, Speaker
Dr. F. F. Borzell, Philadelphia, Vice Speaker
Dr. C. W. Roberts, Atlanta, Georgia (to succeed himself), Board of Trustees

Nominations to the Judicial Council and the Council on Scientific Assembly by the President, Dr. H. H. Shoulders:

Judicial Council: Dr. Walter F. Donaldson, Pittsburgh (to succeed himself); Council on Scientific Assembly: Dr. L. W. Larson, Bismarck, North Dakota (to succeed Dr. Frederick A. Coller).

Nominations to the Council on Medical Education and Hospitals and the Council on Medical Service by the Board of Trustees:

Council on Medical Education and Hospitals: Dr. Victor Johnson, Chicago, and Dr. Lauren R. Chandler, San Francisco (to succeed Dr. Ray Lyman Wilber). Dr. Chandler withdrew.

Council on Medical Service (two to be elected): Dr. Edward J. McCormick, Toledo, Ohio (to succeed himself); Dr. Elmer Hess, Erie, Pennsylvania; Dr. J. B. Lukins, Louisville, Ky.

Dr. Thomas A. McGoldrick, New York (to succeed himself); Dr. Joseph H. Howard, Bridgeport, Connecticut; Dr. Thomas K. Lewis, Camden, New Jersey.

Drs. Howard, Hess, Lukins, and Lewis requested that their names be withdrawn.

There being no contest in nominations for President Elect, Vice President, Secretary, Treasurer, Vice Speaker of the House of Delegates, Trustees and members of the Judicial Council, Council on Scientific Assembly, Council on Medical Education and Hospitals, and Council on Medical Service, the Secretary cast one ballot electing the individuals to the offices for which they had been nominated.

Those elected to office were:

President Elect, Dr. Olin West
Vice President, Dr. E. L. Bortz
Secretary, Dr. George F. Lull
Treasurer, Dr. J. J. Moore
Vice Speaker, Dr. F. F. Borzell
Member of the Board of Trustees (five year term), Dr. C. W. Roberts, Atlanta, Ga.
Member of the Council on Scientific Assembly (five year term), Dr. L. W. Larson
Member of the Council on Medical Education and Hospitals (seven year term), Dr. Victor Johnson
Member of the Council on Medical Service, Drs. E. J. McCormick and Thomas A. McGoldrick
Judicial Council, Dr. Walter F. Donaldson, Pittsburgh, Pa.

A battle royal for the Speakership of the House of Delegates followed. Drs. R. W. Fouts of Omaha and L. W. Goin of Los Angeles had been nominated. After counting the ballots it was found that Dr. Fouts received ninety votes and Dr. Goin seventy-seven, and the Vice Speaker declared Dr. Fouts elected as Speaker of the House of Delegates for the ensuing year.

Honorary, Affiliate and Associate Fellows were then elected.

Dr. Olin West was then presented as President Elect and addressed the House. His remarks are contained in the minutes of the session. Dr. West was presented with a silver service on behalf of the House of Delegates, the officers of the Association, members of the Board of Trustees and numerous friends in recognition of long and faithful service as Secretary of the American Medical Association.

The House of Delegates adjourned at 4:10 p.m. Thursday, July 4, 1946.

Delegates and members of the American Medical Association were accorded every courtesy by the California State Medical Society. They were excellent hosts.

The publicity regarding the meeting was very poor. The dailies, the San Francisco dailies in particular, undoubtedly aided and abetted by some of the members of the California State Medical Society, seemed to believe the feature story to be the difficulties between the California State Medical Society and Dr. Morris Fishbein, Editor of the Journal of the American Medical Association. This they played up with many near and non truths. Publicity such as this is bad, inasmuch as it leaves the average layman bewildered and suspicious.

RECOMMENDATIONS

1. A breakdown of the figures submitted regarding the status of Nebraska physicians is as follows:

Total number	1,637
Members	1,103
Non members	534
Subscribe to Journal of the A.M.A.	901
Non subscribers	736
Fellows	604
Subscribe to the Journal but not members	297
Members but do not subscribe	202

NOTE: Since completing my report, I have been informed by our Executive Secretary that some of the figures mentioned above are incorrect as of the date reported by the Secretary of the American Medical Association. It would appear that the Secretary of the American Medical Association obtained his figure on the total number of physicians registered in the State from the 1942 AMA Directory, the figure 1,637 being identical.

Mr. Smith states that the total number of physicians registered in the State of Nebraska in 1945 was 1,476. Of this number 1,080 were members of the Nebraska State Medical Association. The 396 non members are made up of physicians who are registered in the State but practicing in other states, as well as non eligibles, deceased members, interns and residents, retired, in military service, and six Doctors of Osteopathy. Mr. Smith states that of this number 172 are eligible non members and active in practice, but most of them are older men who are not interested in membership for one reason or another.

If the figure cited regarding the number of Fellows of the American Medical Association amongst the members of the Nebraska State Medical Association is correct, it is recommended that the Association conduct a campaign for the purpose of increasing the number of Fellows amongst the membership.

2. It is also recommended that the Nebraska State Medical Association keep the American Medical Association up to date in figures denoting registered physicians in the State of Nebraska and total membership in the State Association, and that the American Medical Association be requested to each year submit figures to the Nebraska State Medical Association showing the number of Fellows in the State of Nebraska as well as those subscribing to the Journal but not members of the State Association. If this be done, the figures in both offices

will jibe and when given as a report will be correct as of that date.

3. It would seem that the physicians of the United States have a powerful antidote for socialized trends and legislation. I refer to voluntary prepayment medical care insurance.

It is recommended that the Nebraska State Medical Association assist in every way the efforts now being made by the Nebraska Medical Service to publicize the plan to the end that as many citizens of the State as possible will become subscribers.

Respectfully submitted,
J. D. McCARTHY, M.D., Delegate.

REPORT OF DELEGATES TO A. M. A.

First Interim Session

K. S. J. Hohlen, M.D., Lincoln
J. D. McCarthy, M.D., Omaha

The first interim session of the House of Delegates was held in Chicago at the headquarters of the American Medical Association, December 9 to 11, 1946. The session was attended by practically every delegate or alternate of the Association.

Nebraska was well represented at this meeting by having its President, Dr. Johnson of Grand Island, the Speaker of the House, Dr. R. W. Fouts, Past-President, Dr. Charles McMartin, Secretary-Treasurer, Dr. Roy Adams, Executive Secretary, Mr. M. C. Smith, the two delegates, Dr. Joe McCarthy and myself, the alternate, Dr. H. S. Morgan, and the Editor, Dr. Herman Jahr, present. Nebraska was probably as well represented as any other state in the organization.

The minutes of the meeting have been published in the American Medical Association Journal and the rest will be published in the next issue or two, so that we will not go into details. Among the subjects that were considered were Public Relations of the Association as outlined in the Rich report and work was started on the revision of the Constitution and By-Laws, which will be finished at the next annual session.

A splendid address by Admiral Boone, who is making a survey of the medical care that is being rendered miners, was given. Also, the giving of the Fellowship of the members of the Veterans Administration in the Association the same as given the medical staffs of the Army, Navy and Public Health Service.

Reports were received on the development of prepayment plans of medical care and costs. Another matter that was taken up was a resolution criticising the Surgeon-General of the Public Health Service for his non-professional activities. A report by special committee was also given of the plans of the centennial celebration of the American Medical Association at Atlantic City, which will probably be one of the most outstanding meetings ever held by the American Medical Association.

The writer would be derelict in his duty if he did not again ask you to please read these proceedings of the House of Delegates in the last two issues of the American Medical Journal and in the Journal to come.*

Respectfully submitted,
K. S. J. HOHLEN, M.D., Delegate.

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* J.A.M.A. Dec. 21, 1946; Dec. 28, 1946; Jan. 4, 1947.

REPORT OF CONVALESCENT SERUM COMMITTEE

Floyd Clarke, M.D., Chairman, Omaha
W. C. Harvey, M.D., Gering
E. G. Stevenson, M.D., North Platte

Herewith please find financial statement of our Serum Committee.

There is a considerable demand for Pertussis Serum. Approximately 2,400 cc. of Pertussis Serum has been distributed from this office to Nebraska physicians during 1946. No office overhead has been charged for this extra work.

The serum is undoubtedly of benefit in the modification, prevention, and treatment of whooping cough.

We have confined our purchases to the Lyophiled Serum, which has a longer expiration date and therefore there is no loss from out-dated serum.

The total overhead expense for the year exclusive of the indigent account, has amounted to $42.61 for telephone, postage and express.

If the distribution of the serum continues without additional financial assistance, the fund in the bank will be gradually exhausted.

If it is your desire that the work shall continue, I will be willing to carry on as long as the funds last.

FINANCIAL STATEMENT

January 1, 1946 to January 1, 1947

Revenues:		
Pertussis sales	$ 444.00	
		$ 444.00
Expenditures:		
Indigent account	42.00	
Postage and express	15.00	
Telephone and telegraph	27.61	
Cost of serum sold	413.50	498.11
Loss for year, 1946		$ 54.11
Assets January, 1946:		
Accounts receivable	228.00	
Bank balance	453.88	
Serum stock on hand	61.00	
	$ 742.88	
TOTAL ASSETS ON HAND, JANUARY 1, 1947		$ 742.88

Respectfully submitted,
FLOYD S. CLARKE, M.D., Chairman.

REPORT OF INSURANCE COMMITTEE

D. B. Steenburg, M.D., Chairman, Aurora
Ralph Luikart, M. D., Omaha
Ted E. Riddell, M.D., Scottsbluff

There has been no meeting of the Insurance Committee during 1946. The original malpractice underwriters, Zurich Company, withdrew from the state in 1946. The Great American Indemnity Company agreed to issue policies identical with those issued by the Zurich Company. These are now in the printers' hands. The number in this group now totals more than one hundred. There is presently a loss reserve of $4,100 set up; however, there may be no actual loss in the three cases covered by this reserve.

The Indemnity Company has indicated that if the volume of malpractice insurance was sufficient to build up a reserve of approximately $10,000, that they would consider a further reduction of rates.

There have been 225 applications from members of the State Medical Society requesting accident and health insurance under the special group plan made available this year to the membership. This company is arranging a six months series of ads in the Journal and is continuing the enrollment.

Respectfully submitted,

DONALD B. STEENBURG, Chairman.

REPORT OF
INDUSTRIAL HEALTH COMMITTEE

E. A. Connolly, M.D., Chairman, Omaha

T. E. Riddell, M.D., Scottsbluff
F. M. Conlin, M.D., Omaha
C. F. Andrews, M.D., Lincoln
H. L. Clarke, M.D., North Platte

I have contacted all the members of our committee. At the present time we have no recommendations to make.

Sincerely,

EARL A. CONNOLLY, Chairman.

REPORT OF
PUBLIC HEALTH COMMITTEE

Fred A. Long, M.D., Chairman, Lincoln
G. L. Pinney, M.D., Hastings
H. N. Morrow, M.D., Fremont

The Committee did not meet as a unit, but the chairman called on the other two members and discussed the subject. A brief summary of some public health problems is herewith presented and suggestions for further public health promotion are submitted.

The public health problems in Nebraska for the year were not unusual except for two diseases: malaria and poliomyelitis. There was a mild epidemic of measles the first few months of the year, being a normal cyclic occurrence. An epidemic of influenza threatened but did not materialize. The problems of sanitation were numerous but not much different from former years.

Some of the returning military service veterans brought malaria from tropical and semi-tropical areas. One hundred fifty-two cases had been reported to the State Health Department up until the tenth of December. All but one of these cases had been in a foreign malarious area. No cases acquired within the state were reported.

In common with most of the mid-western states, Nebraska has had an epidemic of poliomyelitis during 1946. The reported incidence of this disease for the year is nearly three times the previous high in 1930 when 287 cases were reported. The epidemic started a month earlier than the usual increased incidence and reached much greater proportions than ever previously reported for Nebraska. The decline of the increased incidence has been slower than usual and cases were reported each week up until the time of this report in mid-December.

The care of the poliomyelitis cases was, with few exceptions, on a high professional plane and the death rate was lower than expected. The Nebraska county chapters of the National Foundation for Infantile Paralysis with the aid and support of the National headquarters of that organization have served splendidly in assisting with the care of the victims of this malady. Transportation of patients, hospital bills and physicians' fees have been paid as well as the salaries of nurses and physio-therapists. Educational materials have been provided for professional personnel and for lay persons. This organization and the state representative deserve a letter of appreciation for the fine work they have done.

Two other important preventable disease programs have received additional impetus this year. These are cancer control and mental health. Both programs deserve the support of the medical profession.

The public health committee recommends that the Nebraska State Medical Association and its members lend their support and guidance to the above mentioned preventable disease programs. This will enable the programs to be carried on in an ethical manner and on a high professional plane.

Respectfully submitted,

FRED LONG, M.D., Chairman.

REPORT OF
VENEREAL DISEASE COMMITTEE

L. W. Lee, M.D., Chairman, Omaha
W. B. Quisenberry, M.D., Lincoln
J. G. Woodin, M.D., Grand Island

The Venereal Disease Control Program for Nebraska is conducted for the most part by the State Department of Health. Although the American Social Hygiene Association had a few local chapters in the state, these have not been very active during 1946, but an effort is being made to revive them in the larger centers of population.

The activities of the Nebraska State Health Department in regard to Venereal Disease includes the following:

1. Case-finding registry and statistics.

2. Provision of arsenicals, heavy metals, and sulfathiazole for treatment of cases.

3. Payment for treatment of indigent infectious cases (Chemical Quarantine).

4. Operation of Rapid Treatment Center (Omaha) for referred indigent cases in all stages from anywhere in the state.

5. Education for professional and lay groups.

6. Serological tests and smears by the Health Department Laboratory.

The case finding is chiefly carried on by the investigation of contacts of reported cases of venereal diseases. The registry provides a file of the reports of investigations, and the statistics show the cases reported and results of investigation and clinical treatments.

Arsenicals, bismuth, mercury, and sulfathiazole will be furnished to any physician for treatment of any reported case of venereal disease.

One dollar per treatment will be paid for any infectious case of syphilis in indigents up to forty treatments (twenty arsenicals and twenty bismuth). Syphilis in pregnant women is presumed to be infectious for the unborn child.

The Rapid Treatment Center, located in the Douglas County Hospital, Omaha, will treat any case of syphilis or gonorrhea referred to it by a physician or clinic. Penicillin is the principal drug used for treating both syphilis and gonorrhea, though mapharsen and bismuth are both used as adjuncts in the treatment of syphilis.

Venereal disease educators carry on educational programs with school and civic groups. The director of the Venereal Disease Control Division of the State Health Department acts as a consultant, on venereal diseases, to the medical profession. The Laboratory has long provided free laboratory service to the medical profession. The newer Laboratory procedures are evaluated and adopted as they prove their value. The titred blood serology for syphilis is one of the recent procedures instituted, and the titre of positive tests is given when requested.

The reported incidence of syphilis and gonorrhea in Nebraska for the past five years is interesting. They are as follows:

Year	Gonorrhea	Syphilis
1942	1,412	2,065
1943	1,551	1,513
1944	1,690	1,424
1945	1,596	1,051
11 months — 1946	1,425	2,179

It appears from these figures that the venereal diseases are not decreasing and may be increasing. However, it is generally conceded that the reporting, especially of syphilis, is more complete than in past years. Likewise it is generally believed that there are twice as many cases of gonorrhea as of syphilis among the general population.

The opportunity for the successful treatment of gonorrheal infection by the local physician has never been so great. Recent advances in the use of penicillin, particularly its administration in a suspension of wax and oil, have placed a most effective therapy in the hands of the general practitioner. A single dose of 300,000 units of penicillin in an oil and wax preparation (made by several reputable drug firms) may be given all at one time intramuscularly. Observations on 1,060 patients treated by private physicians, clinics, and rapid treatment centers with a single intramuscular injection of 200,000 Oxford units of calcium penicillin in peanut oil and beeswax showed 92 per cent of the cases with a positive culture before treatment to be classified as cured following treatment.(1)

With present methods of treatment it appears that private physicians and private agencies are in a position to bring immediate treatment to the gonorrhea patient in his home community.

A word of caution should be given concerning the treatment of gonorrhea patients who might also have syphilis. Of admissions to rapid treatment centers for the treatment of gonorrhea, nine per cent had active syphilitic infection. "It is therefore strongly urged that private physicians treating gonorrhea include along wih physical examination, a serologic blood test for syphilis at the beginning of treatment and at the end of the first, second, and third months, whenever possible.(1)

The committee wishes to acknowledge the aid, in the preparation of this report, of Dr. Fred Long, and Dr. W. S. Petty, of the Department of Health, State of Nebraska.

Respectfully submitted,

LEROY WILLIAM LEE, M.D., Chairman.

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1. Heller, J. R.: The Adequate Treatment of Gonorrhea. J.A.M.A., 131:1480-1482, 1946 (Aug. 31).

REPORT OF PREPAYMENT MEDICAL CARE COMMITTEE

A. J. Offerman, M.D., Chairman, Omaha
Chas. McMartin, M.D., Omaha
Donald Steenburg, M.D., Aurora

Your committee is happy to report that your prepayment plan for medical care—The Nebraska Medical Service—is a very thriving successful plan. During 1946 the enrollment in the plan was increased 300% over the enrollment at the end of 1945.

The plan is being introduced into many new communities throughout the state. This is being done as fast as the limited sales personnel will permit. The financial condition of the plan is excellent. Interest on the 4% surplus notes was paid during December 1946. It is anticipated that these surplus notes will be called during 1947, with interest in full at 4% to date.

During 1946 a great deal of effort has been made to obtain enrollments in rural areas, 2,256 persons in 26 groups, who reside in truly rural areas, were enrolled in Nebraska Medical Service. In the coming year, more effort will be made to obtain a greater rural enrollment. Prepayment plans for medical care can play a great part in helping to solve the problem of rural medical care. The enrollment is now in excess of 22,000 members, equally distributed between urban and rural areas.

Nebraska Medical Service was organized primarily to provide health security to the members of the low income group. It should be our project this year to develop a socially minded medical profession. If this can be accomplished, we should be able to obtain the voluntary cooperation of the members of the medical profession, and to have them accept the payments, stipulated in the schedule of benefits of Nebraska Medical Service, as payment in full for services rendered to the members of the low income group. At the same time, continue the indemnity plan for those in the higher income bracket.

There are two methods of operating prepayment medical plans:

The Indemnity plan, and the Service plan.

Nebraska Medical Service is an example of the Indemnity plan. Here the corporation's payment is applied toward the cost of the physician's charges and there are no special arrangements for the low income subscribers. However, the fee schedule allowances in the Nebraska Medical Service are adequate to fully meet the professional charges to those in the lower income brackets. This has been our experience in Nebraska Medical Service, in the 1400 claims which have been paid up to date. We believe that in more than 90% of the cases the fee stipulated in the schedule of indemnities has been accepted by the attending physicians as payment in full for services rendered to the low income group.

The Service plan is the method under which the participating physicians have agreed to accept the corporation's schedule of benefits as payment in full for the services provided. Service benefits are generally restricted to the enrollees in the lower income bracket. These income limits are based on gross income and the number of the dependents.

SUGGESTED ADVERTISING CAMPAIGN FOR BLUE CROSS AND BLUE SHIELD PLANS

Dr. A. J. Offerman

The following program is submitted as the most practical, most effective way to stimulate interest, invite inquiries and secure subscribers to the Blue Shield and Blue Cross Plans, and still keep within the allotted budget.

The program is divided into three parts:

1. ADVANCE PROMOTION

Every doctor and hospital administrator in the area will be notified by letter of the campaign. Enclosed will be a personalized sample letter on a special Blue Shield and Blue Cross letterhead, a sample folder, and a sample reply card which they can order in quantities and send out over their signature to heads of business firms in the area. The reply cards, addressed to the Omaha office will request (1) further particulars, and (2) a personal call by a representative.

They will also be urged to order a supply of folders to be inserted in their regular monthly statements, and also handed to patients making office calls.

The folders sent in the statements and the letters to business firms should be mailed out one week before the first newspaper advertisement appears.

Publicity stories will be given to both newspaper and radio stations beginning about two weeks before the advertising starts and continuing through the entire advertising campaign.

SPEAKER'S BUREAU

The County Medical Society should develop a Speaker's Bureau, that could supply well informed speakers to civic groups, service clubs, etc., to present Blue Shield and Blue Cross Plans in their true light. That is: they are a community service for the welfare of the people of the community; like the community chest, and as such, they deserve the whole hearted support of the community leaders and the community itself.

2. THE CAMPAIGN

The actual advertising campaign will consist of four, forty-five-inch advertisements run one each week for four consecutive weeks in Lincoln, Beatrice, Seward and Fairbury newspapers.

Twenty-six one-minute radio spots will also be used during the same period to supplement the newspaper advertising.

The newspaper advertisements will carry coupons so that interested persons may write for additional information. The coupons will be keyed so the effectiveness of one advertisement against another may be determined. This will help in the preparation of advertisements for future campaigns.

3. THE FOLLOW-UP

The coupon used in each advertisement will request the name and address of the writer, as well as the name and address of the writer's employer. In addition to sending to the inquirer, a letter will also be sent to the employer advising that their employees have evidenced interest in the Blue Shield and Blue Cross Plans. A folder outlining the procedure in organizing a group will also be sent to them.

All leads from employer inquiries will be followed up with a personal call by a salesman, whenever practicable.

ESTIMATED COST OF LINCOLN CAMPAIGN

Folders:		
Combination Blue Shield and Blue Cross folders		$ 300.00
Folder on "How to Organize a Group"		80.00
Letters:		
Special Blue Shield, Blue Cross letterheads		50.00
To doctors and hospital administrators		15.00
To employers from doctors and hospital administrators—reply cards		20.00
To employers mailing reply card or ad coupon		30.00
To employed persons mailing ad coupon		100.00
To persons mailing ad coupon with insufficient information		20.00
To persons mailing ad coupon who are not eligible		20.00
		$ 695.00
Newspaper Advertising:		
Lincoln—4 45-inch ads	$ 579.60	
Beatrice—4 45-inch ads	108.00	
Seward—4 45-inch ads	72.00	
Fairbury—4 45-inch ads	75.00	$ 835.00
Artwork, engravings, composition, mats of 4 ads		150.00
Radio Advertising:		
26 one minute spots on KFOR, Lincoln at $5.94		154.44
Miscellaneous:		250.00
TOTAL		$2,084.64

It is generally accepted today that a single person, who earns $35.00 a week, or $1,800.00 per year and a family whose weekly income is $50.00 and the annual income $2,600.00, are in the low income group.

A participant, whose income is in excess of the stipulated limit, may be charged an additional amount by the physician.

In as much as Nebraska Medical Service is now in practice, working on a service basis, it would be a tremendous advantage in the enrollment of these low income groups, if our representatives could assure the members of the low income groups, that the schedule of indemnities would be accepted by the members of this Association as payment in full for services rendered. It would give them the health security which they so earnestly desire.

Respectfully submitted,

ARTHEUR J. OFFERMAN, M.D., Chairman.

REPORT OF F.S.A. COMMITTEE

E. K. Steenburg, M.D., Chairman, Aurora
M. E. Lathrop, M.D., Wahoo
J. Harold Lynch, M.D., Fairbury

The F.S.A. Committee has been inactive up to the present time.

Inquiry through the local F.S.A. office reveals the following: There were two active plans in the state up to July 1, 1946. Pawnee County and Johnson County. The membership was small. They paid out eighty per cent. Since July 1, 1946, there are no active plans in Nebraska.

Respectfully submitted,

E. K. STEENBURG, M.D., Chairman.

REPORT OF SPEAKERS BUREAU

Herbert H. Davis, M.D., Chairman, Omaha
J. R. Kleyla, M.D., Omaha
C. C. Hickman, M.D., Lincoln

The Speakers Bureau has had no duties during the past year and no meetings. Therefore, there is nothing to report.

Sincerely,

HERBERT H. DAVIS, M.D., Chairman.

REPORT OF CANCER COMMITTEE

James F. Kelly, M.D., Chairman, Omaha
H. B. Hunt, M.D., Omaha
N. H. Rasmussen, M.D., Scottsbluff

During the past year there was considerable activity on the cancer problem in Nebraska. The most important matter of interest was the final organization of the Nebraska Cancer Research and Educational Society. Dr. Rowe of Lincoln served as President, and all committees were appointed. Dr. Tanner of Lincoln is Secretary. Dr. Lucien Stark of Norfolk is Treasurer. A grant of five thousand dollars for educational purposes was made by the Nebraska Division of the American Cancer Society. Only a small part of this money was expended, but during the year 1947 more activity will take place and more expenditures must be met.

Dr. H. E. Eggers, Professor of Pathology, at Nebraska University School of Medicine, served as Vice-President, and this year will assume the office of President. Dr. Eggers acted during the past year on a part-time basis as field educational director for the Nebraska Division of the American Cancer Society, and during 1947 will become the full-time educational field director. At the same time, he will serve as President of the Nebraska Research and Educational Society. This is an extremely fortunate situation as Dr. Eggers, in this dual capacity, will be able to coordinate the activities of these two organizations.

The American Cancer Society is interested mainly in lay education while the Nebraska Cancer Research and Educational Society will have, for its main part, the education of the physicians, as well as acting in a supervisory capacity in all matters pertaining to lay education. Dr. John Schenken of Omaha and Dr. George Covey of Lincoln, co-chairmen of the Program Committee for the Nebraska Cancer Research and Educational Society are undertaking a very comprehensive program, with particular reference to the education of the doctors in the outlying districts of the state on early cancer detection.

In this latter connection, Dr. Eggers requested me, as Chairman of the Cancer Committee, to write the various councilor districts to see what their opinion would be on the formation of tumor groups in outlying districts so that each councilor district or two or three councilor districts, working together, could have a special day set aside at regular intervals in their area for the doctors in that area to bring their cancer cases for examination and consultation. At these meetings, specialists from the larger centers could be present for that day to aid in the work. In other words, it would be a means of stimulating interest in the cancer problem in the outlying districts as well as affording the men in the area some help from those who see cancer more frequently. It would also satisfy the demand of the American Cancer Society that diagnostic clinics be organized in all communities. At the same time, it would leave the matter of diagnostic clinics directly in the hands of the doctors, and there would be no publicity to the laymen regarding this problem.

The reactions to this letter were varied, and the replies have been turned over to Dr. Eggers for discussion with the Program Committee of the Cancer Research and Educational Society. This matter, of course, applies only to the regions where hospital facilities and specialty advice are lacking. The larger centers have no necessity for this as consultation and special examination are within the reach of everyone in this group.

This year will undoubtedly see considerable activity in cancer, and it is the opinion of the Cancer Committee that Nebraska is fortunate in having its own cancer organization so that the intrusion of outside agencies in this field will not be necessary.

It is expected this coming year that we shall again cooperate with the American Cancer Society in their annual drive for funds in April. Last year's drive, despite the opposition of certain Community Chest workers, was very successful. Community Chest authorities thought the cancer fund should be placed among the activities sponsored by their group, and the cancer society would then be allotted an arbitrary percentage of the collection taken up by the Community Chest. The Cancer Society felt that the cancer matter is out of place in the Community Chest fund mainly for the reason that those who give to cancer should not feel compelled to give on the same basis as those who give to the Community Chest. The Community Chest should be a 'must give' collection in any community in that the funds will be used in the interests of the less fortunate who need help during the year. While the cancer activity is a very worthy project, deserving public support, only those people who can afford to give to such a fund should be expected to give, and no funds should be taken from the poor of the community.

The second objection is based on the fact that much of the value of the drive for funds during the month of April each year rests in the fact that it affords a special opportunity for the doctors to emphasize the necessity for early diagnosis if cancer is to be controlled. The educational value of the month of April, if abolished in order to join with the Community Chest activity, would be a great loss both to the profession and the laymen. Finally, it would throw the entire burden of the support of the cancer activity on the few larger centers where Community Chest exists, and the smaller centers which now contribute very liberally to the cancer activity would have no opportunity to do their bit.

The total amount of money collected in Nebraska was $75,195.83, of which $45,671.37, or sixty per cent, was retained in Nebraska to be spent in Nebraska in educational and service projects for the interests of the cancer patients. This is the first time in the history of our cancer activities that any appreciable sum of money has been made available for this activity, and this was accomplished despite some unwarranted opposition to this drive. With this amount of money, a full-time man in the field is possible, and this society will undoubtedly be extremely pleased that the services of Dr. Eggers were secured for this work. Dr. Eggers, with his long years of experience in cancer, seems extremely well qualified professionally, and with his great number of friends out in the state, a high degree of cooperation in this program will be a certainty. This could not possibly have occurred had it been necessary to obtain a complete stranger for this full-time teaching position.

It is the feeling of the Cancer Committee at this time that Nebraska now has the organization to do a great amount of good for those having cancer. The cooperation of all physicians of the state in the annual cancer drive is requested so that money will be available to Dr. Eggers to continually expand his program.

It is our feeling that April should be maintained as the cancer month in the future as in the past since much good comes from emphasizing the importance of cancer at a particular time each year. There will be some time devoted to cancer in our annual program this year.

Dr. Rowe is also arranging for a meeting of the Nebraska Cancer Research and Educational Society at the same time as the Council's winter meeting in Lincoln. At this meeting, Dr. Eggers will give a report on his activities during the past year as field director of the Nebraska Division of the American Cancer Society, and plans for the coming year's activities will be finally formulated. Some material has been submitted to Dr. W. S. Petty, Director of Health for the State. He will publish this material in the lay papers of the state after it is edited for lay presentation by Dr. George Covey.

At the next session of the legislature it is hoped that our Legislative Committee will take steps to have the legislature make cancer a reportable disease.

The appreciation of the Cancer Committee is extended to all the officers of the Nebraska State Medical Association, especially to the President, Dr. Earle G. Johnson, and to our editor, Dr. Herman M. Jahr, as well as the Board of Trustees, the Councilors and the House of Delegates for their excellent cooperation.

Respectfully submitted,
JAMES F. KELLY, M.D., Chairman.

REPORT OF EDITOR NEBRASKA STATE MEDICAL JOURNAL

H. M. Jahr, M.D., Editor, Omaha

The Journal is continuing to serve members of the Nebraska State Medical Association in a manner consistent with its functions. Volume 31, just completed, carried a total of sixty-eight Original Articles.

With the return of peace time conditions, the flow of material for publication is steadily improving. Material presented before the Nebraska Annual Assembly and the Omaha Mid-West Clinical Society is outstanding. With the increase in size of the Journal more papers are published each year.

The year just past was comparatively smooth, and it is hoped that the coming Volume will show continued improvement.

Respectfully submitted,
HERMAN M. JAHR, M.D.,
Editor.

REPORT OF ARTHRITIS COMMITTEE

R. K. Johnson, M.D., Chairman, Friend
J. Bixby, M.D., Geneva
H. R. Miner, M.D., Falls City

Arthritis is the third most prevalent chronic disease in the United States today. We have few diseases which cause greater economic concern and loss of working hours to the individual.

There are two general types — Rhumatoid or atropic, and Osteo-arthritic or hypertropic, which must be differentiated as they call for widely different treatment.

Personal interviews with physicians contacted disclose the following facts:

1. Between 17% and 20% of your patients come to you with a primary complaint of arthritis.

2. The physician fails to inform the patient that he has or may develop one form or the other of arthritis, when he is complaining of other symptoms.

3. The physician may fail to recognize his patient has arthritis because he is concerned with these other complaints.

From these findings we conclude the physician fails to diagnose the causitive factor, whether it be trauma, venereal, streptococci, infected teeth, gall bladder, or any number of other sources of infection. When the diagnosis is wrong atrophic conditions are treated for hypertrophic, or the reverse.

From what we learn from statistics about 40% of our people have some form of arthritis whether they are 20 or 80 years old. Our World War II veterans in the next few years will increase this percentage.

The greatest factor to this seeming neglect in care of arthritic cases is the patient himself who takes it without complaint saying, "I must have a light touch of rheumatism" and only seeking medical advice and aid when his arthritis is well developed and established. This, as we know, is more difficult to control and improve.

In conclusion: We recommend, as our duty as physicians, to formulate an active program to teach the people in our communities to receive early and proper treatment of this disease. We as conscientious physicians must teach, advise and treat them.

Respectfully submitted,
R. K. JOHNSON, M.D., Chairman.

REPORT OF THE PLANNING COMMITTEE

Floyd L. Rogers, M.D., Chairman, Lincoln
Morris Nielsen, M.D., Blair
A. B. Anderson, M.D., Pawnee City
A. J. Offerman, M.D., Omaha
D. B. Steenburg, M.D., Aurora
Chas. McMartin, M.D., Omaha
M. C. Smith, Ex. Sec., Lincoln

The 1946 Council of the Nebraska State Medical Association requested the Planning Committee to prepare a uniform fee schedule for governmental agencies. This fee schedule was presented to the House of Delegates at their spring meeting of 1946. The fee schedule was adopted, also the Planning Committee was empowered to negotiate a contract between the Veteran's Administration and the Nebraska State Medical Association. It was further provided that this contract was to provide for veterans a high type of medical care for service connected disability, this care to be provided by the members of the Nebraska State Medical Association who are desirous of doing this work. Doctors doing this work were to be paid according to the uniform fee schedule. It was also provided that if, in the opinion of either the Planning Committee or the officers, the contract was not satisfactory no action could be taken without further consideration of the Council and House of Delegates.

Complying with these requests the Planning Committee has proceeded during the year to work for the end desired by the House of Delegates and Council. The fee schedule approved by the House of Delegates was submitted to the Veteran's Administration. We were informed by the Veteran's Administration that two types of contracts could be made between the State Association and the Veteran's Administration. Briefly, one of these plans provided that the State Association set up an office for the purpose of carrying out the contract. Under this plan the members of the Association would make examinations, render treatment for service-connected conditions when authorized by the Veteran's Administration. The office of the State Association would be responsible to see that reports required by the Veteran's Administration were made in proper form, fees for the medical service would be in accordance with the fee schedule agreed upon, the State Association office would make payments to the individual physicians for services rendered and would in turn bill the Veteran's Administration at the end of each month. The offices of the State Association would operate without profit. The Veteran's Administration would pay an additional 10% of the bills to the State Association for the maintenance of the office. However, if a profit accumulated there would be a decrease in this 10% so as to bring about the operation of the office without profit. If the contract is mutually satisfactory, it would be indefinitely renewed for periods of one year. It could be terminated by either party by giving 30 days written notice to the effect that they desire to discontinue the contract.

This plan is in operation in several states and was favored by the Veteran's Administration. Inasmuch as this type of a contract would involve the handling of money by the State Association, it would be necessary, according to our constitution, to have it handled through the Board of Trustees. Consequently, the Board of Trustees was consulted in regard to this matter and the question presented to them. After their consideration the Board of Trustees felt that the setting up of this plan would be involved and possibly quite expensive for the Association and felt that any plan set up would eventually prove to be an unnecessary expense to the Association. Because of this and some information which had come to us to the effect that states operating under such plans experienced difficulty, the Planning Committee felt that they should carefully investigate a second plan. The second plan briefly is much more simple in its operation than the first. In this plan the Nebraska State Medical Association would request all of its members to participate in a state-wide program whereby physicians in private practice would render medical service, examination, treatment in such cases as authorized by the Veteran's Administration. The Nebraska State Medical Association would submit to the Veteran's Administration a list of its members desirous of rendering this type of service. The physician so listed would be appointed as physician by the Veteran's Administration. Fees for medical service on authorized cases would be paid by the Veteran's Administration in accordance with the accepted fee schedule. The Nebraska State Medical Association would also assist the Veteran's Administration in establishing for these examinations and treatment a list of competent specialists. The Veteran's Administration would handle the administrative and clerical details in connection with this. The Nebraska State Association would establish one or more Boards of Physicians for the purpose of reviewing reports which are deemed inadequate by the Veteran's Administration and to recommend to the Administration the disqualification of the physician if his work has been found by the Board to be incomplete or unsatisfactory and to advise and assist the Veteran's Administration on other matters within the scope of the program and the Nebraska State Medical Association would not propose to make any charge for this service.

A plan very similar to this is in operation in Kansas and one of the members of the Planning Committee visited Topeka, Kansas, in order to acquaint the committee with the details of its operation. A favorable report was obtained in this interview. On October 18 the Planning Committee met with representatives of the Veteran's Administration and agreed to enter into a contract of the second type. In the meanwhile the Veteran's Administration had specified that certain fees had been established in the Washington office and would, therefore, necessarily constitute the fee for this service. They were most interested in a general, complete physical examination which would be $7.50. Also, information had been obtained in regard to fee schedules which had been accepted in other states. Because of this, the Planning Committee decided to make some changes in the fee schedule which was accepted by the Council and House of Delegates, in May of 1946.

For the most part these changes in the fee schedule were an increase rather than a decrease and the Committee felt certain that these changes on the whole would not be objectionable to the members of the association. In addition to this the Veteran's Administration has requested that the fee schedule be rearranged according to a method of numbering which had been adopted by the Veteran's Administration. It also divided the fee schedule into two part. Part one included the conditions which the Veteran's Administration would be most likely to request, that is, routine laboratory work, physical examination and house calls. Part two included a rather complete list of almost all medical and surgical procedure. Following this it became necessary for the Planning Committee to entirely rearrange the fee schedule.

During October the contract was prepared, fee schedule completed, as approved by the Planning Committee, also approved by the president and secretary of the association and delivered to the Veteran's Administration for various signatures.

We have heard from the Veteran's Administration to the effect that they are willing to accept part one but that some time would be necessary before they could consider part two. We responded to the effect that we would like to get both part one and part two completed inasmuch as a number of other organizations are asking for our fee schedule in order that it might be used. To date we have not heard from the Veteran's Administration as to a final decision.

Respectfully submitted,

FLOYD L. ROGERS, M.D., Chairman.

REPORT OF NORTH CENTRAL MEDICAL CONFERENCE

Floyd L. Rogers, M.D., Delegate, Lincoln

A meeting of the North Central Medical Conference, composed of the states of Iowa, Minnesota, North and South Dakota, Nebraska and Wisconsin, was held Sunday, November 10, 1946, at Hotel Saint Paul, St. Paul, Minnesota, with a total of 76 delegates and guests in attendance.

Dr. J. D. McCarthy, Omaha, Nebraska, North Central Conference President, officially opened the meeting.

The title of his presidential address was "The American Medical Association as an Instrument to Advance the Ideals of American Medicine." In it he paid tribute to the achievements of the American Medical Association. He declared that when the AMA celebrates its centennial during 1947, physicians "throughout the world will be able to glory in its accomplishments during the past 100 years."

"This representative society of the physicians of the United States," said Dr. McCarthy, "Has stuck to its policy of 'promoting the science and art of medicine and the betterment of public health'—and through this policy has materially aided American medicine to assume world leadership.

"Among the things which the AMA has done in the past century have been the ridding of the profession of diploma-mill medical schools, the cleaning up of state licensure laws and the promoting of legislation for the control of infectious diseases."

He called for unity of purpose, the channeling of suggestions, resolutions and criticisms through an orderly manner—the thrashing out of problems within the organization itself instead of on the front pages of metropolitan newspapers. He condemned what he termed "descent to gutter politics."

"Opinions expressed to the councils of the parent body, even though reflecting minority opinion," he said, "would be effective and give to the over-all endeavor a solid-line front."

Mr. Hendricks, Secretary of the AMA Council on Medical Service, reviewed Public Relations Setup.

He outlined briefly the main phases of the AMA program. He pointed out that in dealing with the subject of public relations, one must distinguish between "public relations" and "professional relations." As for professional relations, the Council program, as outlined by Mr. Hendricks includes the following: Publishing news letters, keeping them informal and informative; distributing to the school debate handbooks, presenting facts not propaganda concerning socialization of medicine; operating a speakers' bureau; cooperating in the Navy survey of public health and sanitary conditions among the coal miners; helping to successfully complete the objectives set forth under the provisions of the Hill-Burton Bill; developing state health councils in the various states; and sending out questionnaires to determine what problems exist in the medical care field.

RURAL MEDICAL SERVICE PROBLEM

Dr. Larson, a member of the AMA Committee on Rural Medical Service, described the existing situation and said that the medical profession is doing everything it can to encourage young physicians to locate in rural areas, especially where the need is greatest.

"Farm people are beginning to realize," said Dr. Larson, "that much of the responsibility for obtaining and keeping a practitioner in the rural area rests with them. He must be assured a decent living wage, opportunity for advancement, facilities with which he can practice modern medicine, and a desirable town in which to live, where there are facilities for comfortable living conditions, recreation and the education of his children."

Mr. J. W. Holloway, Jr., Director of the AMA Bureau of Legal Medicine and Legislation, called attention to the fact that the Washington legislative slate has been wiped clean—when Congress reconvenes, it will start afresh, not take up where it left off in August.

"The most important piece of legislation of concern to medicine was the Hill-Burton Act," Mr. Holloway said. "In anticipating the availability of benefits of this act, some 28 states have already enacted legislation designating a state agency to function in connection with the program. While the majority of states have designated state health departments as administrative agency, others have created special commissions or boards.

Mr. Holloway pointed out that the benefits of this federal law are already evident. Growing out of the law, he said, is a movement to promote uniform state hospital licensure laws, providing definite standards for hospitals, both those constructed with federal aid, and other hospitals.

Mr. Holloway explained that while the Hill-Burton Act doesn't specifically require uniform state hospital licensing laws, it does require states to enact legislation by July 1, 1948, setting minimum state standards for maintenance and operation of hospitals, if the state is to receive federal aid under the law in their construction.

Dr. E. J. McCormick, Chairman of the AMA Council on Medical Service, was then presented. He complimented the North Central Conference on its choice of Mr. Adson as president-elect and highly commended Dr. Adson for his excellent service to the Council during the years he has been a member.

He traced the evolution which has taken place in the affairs of the Council since its establishment with inadequate personnel in 1943 to the present when it has the full-time service of Mr. Hendricks, whom Dr. McCarthy termed a great public relations expert, and a staff of highly-trained experts in various fields in which the Council is directing its efforts. Of these, he mentioned Mr. George W. Cooley, assistant secretary, Mr. Howard Brower, whose work is largely with insurance companies interested in cooperating in the underwriting of medical insurance programs, and Mr. L. S. Kleinschmidt, whose chief interest is in the rural aspects of prepayment medical care programs. The services of these staff members are available to states seeking assistance in developing contracts and other phases of prepayment medical service plans.

He told of the recent removal to larger quarters of the Washington Office and the procurement within the next few weeks of a full-time assistant to Dr. Lawrence.

At this point he quoted statistics from a recent editorial which revealed that enrollment in medical care plans approved by medical societies had jumped 45 per cent since the first of the year, covering 4,063,497 persons as of September 1. And that same rapid expansion, he said, could be anticipated here as the Blue Cross had enjoyed, which at the present time covered 24 million persons. The editorial stated further that there were now 51 medical prepayment plans approved by medical societies in operation on September 1, 21 of these having been added during the last two years; participating under them were 75,000 doctors, or more than half of all of the private practitioners of medicine. Michigan Medical Service, with 875,000 enrolled was the largest plan, followed by United Medical Service of New York, which had in excess of 400,000 members enrolled, demonstrating a growth of 308 per cent in eight months.

Dr. C. M. Peterson, Secretary of the Council on Industrial Health, gave a running account of the activities participated in by the Council since the National Bituminous Coal Mine Wage Agreement which was executed May 29, 1946, during the period of government operation of the mines.

Dr. G. D. Williams, of the medical department of the Veteran's Administration in Washington, revealed that as of November 10, 1946, the VA had agreements or contracts with 28 state medical associations or state medical service organizations. Negotiations, he reported, were almost completed in 13 other states, giving a total of 41 states.

"The amount of out-patient treatment that must be given to our veterans is enormous and is steadily increasing," Dr. Williams declared. "In these days of shorter stays in hospitals after operations, it may be expected that not only out-patients, but very probably a large number of hospital after-care cases will be sent to private physicians.

"The trend, though not a definite policy, has been to concentrate examinations in regional offices and send out-patient cases to private practitioners.

"What may a physician expect as to in-patient treatment of veterans? In addition to the VA hospitals themselves, VA has taken over from the Army a large number of their hospitals. A large-scale construction program is under way by which is intended to give us a total of 186 hospitals within the next two years."

Dr. Williams said that these 186 hospitals should enable the VA to care for approximately 150,000 patients. But, however, he noted that since many of these hospitals are not yet constructed or in use there is still the question of where will the veterans be hospitalized meanwhile.

Dr. Williams then turned to a discussion of what he termed one of the VA's biggest "headaches,"—fee schedules. The VA, he said, has for years had a standard schedule. This now is outdated and unacceptable; and when the earliest contracts and agreements were signed fee schedules were submitted from the various states which varied not only in services offered to the VA patients, but also in fees charged.

Since the VA has discovered that fees to be charged is the most difficult part of the problem, Dr. Williams said, it is now working on a method whereby fees will be determined in work units rather than in dollars.

"With the signing of the Hill-Burton Hospital Survey and Construction Act, the United States embarked on the most comprehensive hospital program ever undertaken by any nation," Dr. Herman E. Hillebee, assistant surgeon general of the U. S. Public Health Service, told the delegates.

He explained that the broad purpose of this federal legislation is to assist states in planning for and providing hospitals and health centers distributed geographically in proportion to the need. The Act, he said, provides that the program be carried out in two stages; first, the survey and planning, and second, the actual construction.

"Individual hospitals, communities and states will participate with the federal government in the program," said Dr. Hillebee. "Federal funds will make up one-third of the costs; the non-federal share will be two-thirds. For the survey and planning phase of the program, Congress has authorized three million dollars of federal money; for the construction phase, 75 million for a five-year period."

Dr. Hillebee stressed the fact that this Act delegates the major share of the responsibility to the States. The role of the federal government, he pointed out, is primarily one of guidance in planning and approval of grants of federal funds. An official agency of each state government will administer both the survey and the construction phases of the program. A state advisory council, composed of technical and consumer representatives will participate actively. The states will maintain and operate the hospitals after they are built.

Respectfully submitted,

FLOYD L. ROGERS, M.D., Delegate,

REPORT OF
THE M. C. H. COMMITTEE

H. S. Morgan, M.D., Chairman, Lincoln
G. E. Peters, M.D., Randolph
L. S. McGoogan, M.D., Omaha
Paul Morrow, M.D., Omaha

Once more the report of the M.C.H. Committee is divided into two parts; the first dealing with the M.C.H. Activities and the second pertaining to the medical care phase of the Old Age Assistance Program.

PART I

Although the State Association declined further cooperation with E.M.I.C., that program is still being maintained by the State Department of Health, in accordance with the regulations establishing the act.

Plans are under consideration at this time for the re-establishment of Post-Graduate courses at the University of Nebraska College of Medicine using the facilities of the University Hospital and the services of the M.C.H. personnel. It is hoped that these courses will be popular and that there will be an increasing demand for their expansion as well as for a re-establishment of circuit courses. The committee will welcome suggestions from the Council, the House of Delegates, or individual members of the association as to the format of these post-graduate courses. In short, this is a program for the membership and your committee is anxious to provide subject matter and personnel that will appeal to all.

PART 2

The medical care phase of the Old Age Assistance

Program was outlined in the January issue of the Journal. Since its publication, certain matters have developed that need clarification and at the time of writing this have not been settled. Your committee will present a supplemental report at the Council Meeting.

Respectfully submitted,

HAROLD S. MORGAN, M.D., Chairman.

SUPPLEMENTAL REPORT OF THE M. C. H. COMMITTEE

The M. C. H. Committee has recently met with the Director of Health, the Director of the Division of Maternal and Child Health, and the Dean of the University of Nebraska Medical College. The contemplated post graduate activities of the Medical College was reviewed and your committee recommends that the State Association cooperate in the fullest extent with the division of M. C. H. and with the University of Nebraska in the furtherance of a comprehensive program of Extra and Intra mural post graduate instruction. Plans for the future contemplate the offering of Intramural Refresher Courses at the University Medical College, at monthly intervals and Extra Mural programs are to be arranged at convenient times and places throughout the state on a less frequent basis.

The attention of the profession is directed to the fact that materials for immunization are still supplied to the doctors of the state free of charge upon their request.

The M. C. H. Committee acting as a technical advisory committee to the State Assistance Department has met, as a part of a general medical advisory committee, with the State Assistance Department on several occasions throughout the year.

At the 1946 midwinter meeting of the council, this committee reported as to operations of the Aid for Dependent Children program and by reason of the affirmative vote of the council and the House of Delegates, felt that it had an established principal to guide it in recommendations to the Assistance department, in the setting up of the medical care phase of the Old Age Assistance program.

The attention of the council is respectfully directed to the published recommendations of the General Advisory Committee in the January 1947 issue of the Journal, a copy of which is submitted with this report. Since the publication of the report, certain problems pertaining to the Dispensary patients of the two medical colleges in Omaha have been discussed by the officials of the colleges, the committee and the Assistance Department. These matters have been satisfactorily solved and in such a fashion, that there should be no interference with the clinical material available to the two colleges.

Your committee feels, that the plan as it now is operated gives the patient free choice of physician and does not permit of an intervening agency between patient and physician. Certain warnings must be issued however as to possible abuses. Already two or three cases of padded fees have been brought to our attention. If this practice were to become prevalent great discredit would fall on the medical profession and would result in the defeat and the primary aim of the program.

The medical care phase of the assistance program is a new venture and will of necessity require revisions from time to time as local problems arise. Your committee is willing to devote as much time to the problem as is necessary and will welcome suggestions and advise.

Respectfully submitted,

HAROLD S. MORGAN, M.D., Chairman,

REPORT OF THE EXECUTIVE SECRETARY

M. C. Smith

The functions and duties of your executive secretary are closely allied with all of the activities of the association. As such executive officer he is in close contact with the work of all committees and officers, lending such assistance as is possible that the work during the year may be correlated and carried forward as a unit. However, since all committees and boards report annually to the Council and the House of Delegates, any detailed report of all activities would be merely a repetition as well as time consuming. This report will cover only such points as are not a part of the activities of other officers and committees.

At the beginning of a new year it is always well to review the activities of the past year, and by comparison with other years, to learn something of progress and accomplishments. Such a survey is interesting as well as instructive to the officers as well as the members. Total income for 1946 was $34,859.57, consisting of $15,765.00 from dues and $19,094.57 from other sources. Total income for the year previous was $25,071.92, consisting of $12,375.00 from dues and $12,696.92 from other sources. The increase in dues indicates the number of our members who have returned from military service, and who are now paying members again. We welcome these members back, not merely because they are again active members of the association, but because their services are badly needed to serve the people of Nebraska. The increase in income from other sources reflects an income increase in the journal of approximately $3,200.00, and the balance is income from the Annual Assembly which is now handled directly through our regular accounting system rather than a special function. Our total income for 1942 was $18,542.63, consisting of $10,530.00 in dues and $8,012.63 from other sources. The increase of approximately 50% in the amount of dues income is accounted for by the increase of dues from $10.00 to $15.00 per member. The number of members is essentially the same for the two years. The increase in income from other sources is approximately 138% in the four year period from 1942 to 1946. This increased income comes almost entirely from the journal and the Annual Assembly.

Total expense for 1946 was $34,100.27 as compared with $24,896.18 for 1945. The increase in expense for the two years is comparable with the increased income, indicating that the additional income is invested in association activities. During the year, the reserve of the association was increased by $1,175.00 invested in government bonds. There was an excess of receipts over disbursements of $759.30.

Perhaps it should be pointed out at this time that the present successful operation of the activities of your association is dependent on a budget which is greatly increased from previous years, and that such a budget must, of necessity, be maintained for continued operation on such a plane. Further expanded activities of the association will call for an increase in the operating budget. Under present general business conditions it is not unlikely that the income from sources other than dues reached a peak in 1946. Increased income for expanded activities will of necessity need to come from dues collected from members. Any reduction of income from these other sources will likewise require an increased income from dues, if activities are to be maintained at the present level. Fortunately, thus far your association has been able to maintain a dues level that is lower than the average as compared with other states with a comparable program. Many of the other states have dues assessments two or three times as large as that of Nebraska, the highest being in California with an annual assessment of $100 per member per year. May I refer you to the February 1947 issue of the Nebraska State Medical Journal, page 85, which carried a survey and tabulation of annual dues charged by the various states as made recently by the Oklahoma State Medical Association.

THE STUDENT LOAN FUND

We reported a cash balance in this fund at the close of business on December 31, 1945, of $3,124.87, with two outstanding notes. During the past year we have received payment of $128.57 on the interest and principal of one of the notes. This note is being paid on a monthly basis and should be paid in full during the coming year. Since the first of the year we have received one payment on the other note, and we have been assured that regular payments will be received until it is all paid. These two notes are the only remaining outstanding obligations of this fund. At the close of business December 31, 1946, the cash balance of the fund was $3,253.44 with two outstanding notes in the amount of $920.15, and the amount of interest due is $125.48.

LEGISLATIVE

The legislature has just opened the 1947 session, and the session is not yet far enough advanced for any kind of comprehensive report. There have been a number of bills introduced which have to do with public health and welfare. These will receive the usual vigilant attention of your committee.

THE JOURNAL

The advertising income for the journal reached an all time high figure for the past year. Again, by comparison, it is interesting to note the advance made. The advertising income for the year 1942 was $5,563.64. This was increased to $11,725.27 for 1945 and during the past year reached $14,921.34. The journal contained a total of 1,070 pages for the year, of which 522 were revenue producing pages and 548 were non revenue or reading pages. The overall publication cost amounted to $15.60 per page.

On numerous occasions we have received many fine compliments on the general excellency of the Nebraska State Medical Journal, both in editorial content and format. Your state medical journal ranks high in comparison to other journals. The increasing success of your journal is not due entirely to the efforts of the editor and business manager, but also in a large part to the interest of every individual member and reader. The success of any publication is due to the reader interest which it maintains. We have had excellent cooperation from the membership in their contact with detail men and our advertisers. Since the journal is the medium through which information of the association, as well as the advances of scientific medicine, is disseminated to the membership, we hope that we may have this continued cooperation.

THE ANNUAL ASSEMBLY

The Annual Assembly will be held in Omaha this year, with headquarters at the Paxton Hotel. The dates set are April 28, 29, 30, and May 1. The Committee on Scientific Assembly is planning a new type of program for this year which has created considerable comment and interest. Increased income from technical booth displays has made it possible to expand the program and produce a program which is of greater value to the members. The space income from the 1946 Annual Assembly amounted to $2,785.00. Of this amount there was $112.60 transferred to the general fund after all expenses had been paid. We have already sold 32 spaces for the 1947 meeting for $2,910.00 and there are still left 8 spaces. Again, this may be compared with an income from sale of space for the 1940 meeting in the amount of $1,030.00.

RELOCATIONS

Your headquarters office has been interested during the past year in finding satisfactory locations in the state for returning medical officers. The headquarters office has become a point of contact for both towns which are desirous of having physicians and physicians who have been discharged from the armed forces and are looking for a place to establish themselves in private practice. A roster of information has been maintained which is used to recommend towns to these returning veterans. We have been able to help many of these men to locate with another established physician or in towns where their services are needed. The peak load of this work has been reached, and there are still a number of good communities in the state where physicians are needed.

MEMBERSHIP

We submit herewith the usual tables, showing the state of membership of the association. We have found a great deal of difficulty in keeping our membership records accurate for this report, since there are many physicians who have been moving around and others have been returning and locating for the first time. Many young physicians are returning from the service, who have never been in private practice. These are holding active Nebraska licenses, but the only address we have for them is a home address. We have found instances in which we have them listed as an active licensee, but on further investigation we learn that the address is a home address, and they are located in practice outside the state. We hope to have more accurate records within the next year.

TABLE NO. 1

Members deceased	10	
Non-members deceased	20	30
Members moved out of state	24	
Non-members moved out of state	34	58
		88

New physicians in state	124
Net Gain	36
In active practice	1,372
Retired, but eligible	39
Members, December 31, 1945	1,080
Members, December 31, 1946	1,118
Net Gain	38

TABLE NO. 2

Registered physicians		1,942
Residing out of state	501	
Deceased	30	
Members	1,030	
Non-eligible	44	
Retired	39	
Listed non-members	209	
Unaccounted for	89	1,942

TABLE NO. 3

Members:	
Deceased (1 honorary)	10
Honorary	29
Military	37
Out of state	41
Active	1,001
Total	1,118

COMPONENT SOCIETY VISITATIONS AND MEETINGS

Many of our component societies are again resuming regular monthly meetings which have been discontinued because of war conditions. Your executive secretary has attended the regular national meetings to keep well informed on national activities of organized medicine. He appeared as a speaker at one of the regional conferences of the Council on Medical Service of the A.M.A. held in Denver and was honored as a guest speaker at the Wyoming State Medical Society last July. We hope that we will have the opportunity to meet with many of the component medical societies during the coming year. It is the wish of your executive secretary to visit every component society in the state at least once each year, and to carry the message of the activities of the association to the membership. Invitations are always welcome.

CORRESPONDENCE

The correspondence records show that a total of 10,194 pieces of mail have gone through the office during the past year. There were 4,592 pieces of incoming mail and 5,602 pieces of outgoing mail.

Respectfully submitted,
M. C. SMITH, Executive Secretary.

HOSPITAL NEWS

MINDEN: The statistical report, made by Sister Gregory in charge of the Seeley Memorial Mercy Hospital, for the year 1946 shows:

Total number of patients during the year, 373; deaths, seven. Total days of care given, 2,681; number of babies born, 135; twins, one set.

The Sisters of the Resurrection are managing the hospital, their Mother House being in Chicago, Illinois.

OSCEOLA: Charitable services worth $750 have been performed during the past year, according to a report by St. Francis hospital here.

Patients handled during the year totaled 337 and there were 40 births at the hospital. The institution is staffed by four doctors and eight Sisters.

CRAWFORD: The Rural Medical Foundation, Crawford, a non-stock corporation, incorporated in February to raise funds to construct a hospital at Crawford.

A door to door canvass for funds for the establishment of a community hospital was started in Sargent and surrounding community in February. The drive is being made by an American Legion post committee.

The movement for a community hospital started at Sargent several months ago and actual contributions to the fund as of February 20 amount to $5,325.

LEGISLATURE PASSES HOSPITAL SURVEY ACT

LB 160, giving legal status to the hospital inventory and survey project which has been under way in Nebraska during the past nine months, was passed by the Nebraska Legislature on March 6th, by a vote of 24-16. The Bill, introduced by Senators Harry A. Foster, of Douglas County; Howard C. Prichard, of Richardson, and Henry Hern, of Dawes, provides for compliance with the Federal Hospital Survey and Construction Act requirements, and authorizes the acceptance and expenditure of federal funds, establishes a new division within the Board of Health. The Bill now goes to Governor Peterson for signature.

PRELIMINARY RECOMMENDATIONS FOR HOSPITAL PLANNING IN NEBRASKA

One of the major problems confronting the state concerns the availability and quality of medical care and hospital facilities in the rural area. Studies of the situation reveal deficiencies in hospital and medical service in small villages and their adjacent areas.

During the last two decades, particularly, there has been a continuing decline in the number of physicians in the rural regions. While economic conditions are in a large measure responsible for this situation, they are not the only factors that have brought it about.

The advances of medical science have stimulated the development of medical specialties, extended the role of the hospital and increased the need for conferences and consultation among physicians.

The program of education for the medical students in colleges and hospitals stresses the importance of utilizing modern methods of diagnosis and treatment. This instruction is carried on in well-equipped institutions, an environment of group practice at its best. This program induces an unwillingness in the young physician to enter upon a practice in regions where similar facilities and services are not available.

There appears to be no ready or simple solution to the problem. The construction of hospitals in the absence of medical and technical personnel would be an economic waste. However, without hospitals or similar facilities, young physicians will not elect to go to rural areas. We are faced with a situation of a vicious cycle.

Various measures have been suggested in order to correct the deficiencies. The American Medical Association is assembling information concerning the need for physicians in each of the counties in all of the states. This information will be published and otherwise made available to the medical profession—particularly to physicians returning from military service.

It has been demonstrated repeatedly that the people of the state will travel great distances to obtain what they consider adequate hospital care when they feel that their special need demands it. However, the shorter the distance from the individual's home to the hospital, other things being equal, the more he is likely to use the hospital. It has been shown that hospitalization is desirable early in an illness or as a measure to prevent future disability thus promoting better public health. The distance one has to travel to receive hospital care, which frequently seems unimportant, is a governing factor.

It is generally recognized that comprehensive hospital service cannot be rendered economically or efficiently in very small hospitals. Conversely, it has been repeatedly stated that very large institutions become unwieldly from both an administrative and service viewpoint.

It has been indicated that small hospitals (less than 40-bed capacity) cannot be economically operated, chiefly because "overhead" administrative costs are disproportionate to other operating costs. Certain administrative or supervisory positions are essential to good hospital administration, such as the administrator, director of nursing, dietitians, housekeeper, accountant, engineer, medical record clerk, laboratory technician, operating room nurse, etc. Some of these positions can be combined, but the nature of the services performed in others is such that combinations cannot be made. It is equally true that in those instances in which a small number of beds might suffice to meet the public need for hospital service, the number of qualified physicians, and particularly surgeons, available does not permit efficient professional services. Competent specialists are not likely to be available in areas in which hospitals of 40-bed capacity or less are needed.

In those areas in which the density of the population does not justify the construction and operation of a hospital, the establishment of a public health and medical service center would relieve the critical situation now existing by serving the health requirements of the area in a limited but effective manner. It would be the purpose of this unit to make available some of the functions normally provided by the public health agency and the hospital.

The conduct of a program in health education is of primary importance in improving the health status of the public. Such a center would serve as a focal point about which public and voluntary agencies would coordinate their efforts in carrying on effective educational activities pertaining to the general health of the area.

Such centers could serve as the headquarters for the official public health agency with offices for the health officer, sanitarian and public health nurses. The center would be the base for programs in sanitation and preventive medicine, such as immunization against preventable diseases, the early diagnosis of tuberculosis, control and treatment of venereal diseases, maternal and infant care activities, etc.

Such centers would be more likely to attract competent physicians to the areas by providing the equipment essential to the practice of modern medicine. It would be economically impractical to supply the full complement of diagnostic facilities found in large hospitals. However, provisions should be made for the conduct of routine clinical laboratory tests and for x-ray services of the type which every physisian should be able to perform. The physician himself or a nurse trained in the techniques of the more commonly used diagnostic tests and examinations could operate these facilities. In some instances, trained technicians would be employed.

In the smaller of these centers, an office and examining rooms might be provided for the physician who could be available at appointed hours or upon call. In others, office facilities might be provided for the one or more physicians who were resident in the community. In other instances, physicians located in the community might conduct independent offices but utilize the center's diagnostic and other facilities. Through such centers various types of arrangements might be provided which would make the practice of medicine in the rural area more attractive to competent physicians and thereby secure a better standard of service for the rural people.

The modern practice of obstetrics emphasizes the need for proper care of mother and child. The advantages of hospital care at the time of birth are evidenced by the lower death rates of both mother and child in hospitals as compared with those in homes.

The provision of proper sterilization and delivery room facilities and a few beds in the public health and medical service center for the care of normal obstetrical cases would be highly desirable. Prenatal examinations and attention for the expectant mother as well as post natal service to the mother and well child care for the infant could also be readily available.

A facet of the health and medical service center concept not directly concerned with the raising of the level of public health, but of real importance, consists in the provision of adequate facilities for the care of the patient in accident and other cases of emergency. Many localities have neither medical nor hospital service available within a radius of many miles. In such instances, patients must be transported to the nearest hospital or doctor, often causing undue hardship and aggravating the injury. Weather and terrain may prohibit transporting the patient, leaving him to fare for better or worse without skilled attention.

These centers would provide temporary facilities for treating emergency cases until suitable arrangements could be made for the transfer of the patient to a general hospital. A definite affiliation should be developed between public health and medical service centers and a conveniently located general hospital. A regional ambulance service should be established for the transportation of patients from these centers to the affiliated general hospital. Ambulances should be available on call at a central point in the area. Transportation by air should be given consideration in the more sparsely settled areas. Helicopters and autogyros lend themselves to development as air ambulances.

For the long range program, it is recommended that:

1. Hospitals should be constructed only in those communities in which the size of the population, the availability of medical and technical personnel, the economic conditions and other factors justify such facilities.

2. The location of rural hospitals should be contingent upon a reasonable expectation that a high quality of medical care can be developed and maintained in the institution.

3. In order to justify their creation in rural areas, hospitals should be designed to act as the focal point from which all health services in the area emanate.

4. There should be a minimum of 15,000 persons living within a radius of not more than 30 miles in order to justify the construction of a hospital of 40-50 bed capacity which is deemed to be the smallest unit in which adequate service can be provided and which can be operated economically and efficiently. (This pertains to rural areas and not to metropolitan areas).

5. The convenience of the patients and the accessibility of the institutions should be considered in the establishment of rural hospitals. The hospital community should be large enough to adequately finance complete hospital service, but small enough to be convenient for use by residents in the area.

6. Hospitals of small size (50-100 beds) should establish working relations with larger hospitals in order that the services of consultants in the professional services may be readily available; that means for ready reference of patients requiring special services may be established, and that advice or assistance in administrative matters may be obtained.

7. The medical staffs and governing boards of small hospitals should adopt rules and regulations based upon the facilities and the qualifications of the professional personnel which will serve as a guide to the staff in the conduct of medical practice within the institution and which all indicate the limitations of such practice.

8. Hospitals to be considered self contained and self supporting units, capable of providing comprehensive medical service should have 100 or more beds. In order to maintain effective patient service and to remain within the limits of efficient and economic operation, the general hospital should not exceed 750 beds in size.

9. Rural hospitals should provide office space for physicians, if that is desired; facilities for public health activities; and certain diagnostic services for patients who cannot readily be transported to larger centers.

10. Facilities should be provided in some outlying regions in which physicians can conduct regularly scheduled clinics or be available for consultation at specified times and in which a nurse can be available for emergent care pending the arrival of the physician.

11. Public health and medical service centers should be established in those areas in which the size and density of the population does not justify the development of a hospital of approximately 40-50 bed capacity.

12. Because of the sociological, economic, health and other related factors existing in such areas, these centers, in most instances, should be established and administered as units of the local or state government.

13. Medical health centers should be designed to provide both preventive and curative health services. Public health activities in these centers should be under the control of local or state public health authorities. Medical services for conditions requiring hospital care should be integrated with and under the control of the medical staff and administration of a nearby hospital.

14. Public health and medical service centers should provide facilities for the conduct of public health activities, such as, offices for the public health officer; sanitarian and public health nurse; facilities for the more commonly used diagnostic procedures; facilities for services to ambulant patients and for patients requiring temporary bed care in emergency. Such centers should provide office space for physicians and dentists in local practice if desired. Arrangement should be made for 24-hour emergency service through the assignment of a local health officer or nurse assistant to assume administrative responsibility for obtaining necessary professional assistance at all times in the event of need.

In conclusion, let it be emphasized that it is not intended or expected that such a plan will provide to rural people all of the services so readily available within the confines of a metropolitan area, nor is it practical to think that it can be done. It is proposed that the gap can be bridged to some extent by providing a facility whereby preventive services can be provided and a means of making more specialized curative services within reasonable reach. Ages have proven that we cannot turn the hands of time back and we would not if we could. We are fully convinced that these services can be provided economically and efficiently if local communities are willing to purchase them.

—D. M. ALDERSON, M.D.,
Director of Hospital Survey,
State of Nebr. Department of Health.

EXTRAMURAL POSTGRADUATE COURSE IN OBSTETRICS AND PEDIATRICS

March 24-April 4, 1947, presented by University of Nebraska College of Medicine in cooperation with Maternal and Child Health Committee, Nebraska State Medical Association and Maternal and Child Health Division of Nebraska State Department of Health.

No registration fee required. Registration, 2 p.m. at local hospital. Dinner hour will be at 6:00 p.m. unless otherwise announced locally, immediately followed by the medical talks and discussion.

William E. Rapp, M.D., Obstetrician, and John L. Gedgoud, M.D., Pediatrician.

Monday, March 24, Chadron Hospital, Chadron, 12th Councilor Dist.

Tuesday, March 25, St. Joseph's Hospital, Alliance, 12th Councilor Dist.

Wednesday, March 26, Methodist Hospital, Scottsbluff, 12th Councilor Dist.

Thursday, March 27, Sidney Country Club, Sidney, 12th Councilor Dist.

Friday, March 28, Duchess Hotel, Ogallala, 11th Councilor Dist.

Monday, March 31, St. Mary's Hospital, North Platte, 11th Councilor Dist.

Tuesday, April 1, St. Catherine's Hospital, McCook, 10th Councilor Dist.

Wednesday, April 2, City Hall, Holdrege, 10th Councilor Dist.

Thursday, April 3, Hastings State Hospital, Hastings, 10th Councilor Dist.

Friday, April 4, Good Samaritan Hospital, Kearney, 9th Councilor Dist.

Topics chosen by Wm. E. Rapp, M.D., are: (1) "Chief Causes of Maternal Death in Nebraska and Why" and (2) "Female Pelvic Pathology"—with colored slide illustrations (auxiliary lecture available).

Topics chosen by John L. Gedgoud, M.D., are: (1) "Diarrheas in Infancy—Particularly the Newborn" and (2) "Protein Depletion—Therapy in Infancy and Childhood."

Clinic hours for case presentation will be held at all points except * Sidney, Hastings, Holdrege. The Obstetric and Pediatric Clinics will be held afternoons in accordance with local Medical Society Program announcements. Dinner arrangements, if any, will be announced by the Local Society. Evening lecture hours—8 p.m. each day in accordance with local Medical Society Program announcements.

* Drs. Rapp and Gedgoud will be available for request case consultations by 2 p.m., at these points.

Consult Local County Medical Society Program for exact hours of clinics and lectures.

PUBLIC HEALTH NURSING WEEK

Public health nurses have worked for three and one-half decades to develop a service vital to our national health. Three years ago we undertook an annual program for more adequate local, state and national interpretation of that service so that, as public health nursing has developed in quality it may also grow in quantity for the benefit of all. This year we are continuing this program with a national Public Health Nursing Week, April 20-26, when we hope to publicize our program so that none may remain ignorant of its offerings.

Public health nurses, individually and as a group, are still far too often misunderstood by the lay public and the medical profession. During our "Know Your Public Health Nurse Week" in 1946, a survey made in one area showed that a great number of people believe the public health nurse can be called instead of a doctor. That this was still an attitude of the public came as a shock to the profession which spends as much of its time urging medical care and supervision as they do giving bedside care. And busy doctors become irritated when a mother quotes the school nurse as saying that Johnny needs his tonsils out. The nurse trained in public health is well aware of the fact that no one, other than the man who is to remove them, can say when tonsils must come out—the mother has put her own interpretation on our advising an examination.

So it is our purpose during the coming "Public Health Nurse Week" to acquaint the medical profession as well as the lay public with our true aims and objectives. As a newer branch of nursing we wish to tell the doctor that we are his skilled assistants in the home. The treatments he orders we can explain and demonstrate to the family, so that they may be correctly carried out. The condition that warrants a return visit from the doctor is recognized and reported. The medical term used that is worrying the family is explained. A demonstration bath for either the new-born baby or the aged confined to bed is an integral part of the program. Afer a communicable disease is diagnosed, we teach the family isolation procedures. These are just a few of the many services we offer where our work can be of direct aid to the physician.

The program to educate the public goes on year round, and is just intensified during our "Week." Our continual screening examinations at school, referring people with abnormal conditions to the doctor's office for examination is but one phase. The public health nurse works at all times on her part of the preventive medicine program, teaching good diet, hygiene, yearly physical examinations and immunizations.

You have a valuable assistant in the public health nurse if you will consider her as such. We wish to assist you in your work, but we can only do so when you call on us.

—SHIRLE B. ARMSTRONG, P.H.N.

WOMAN'S AUXILIARY

At their February meeting, the Adams County Auxiliary elected new officers for the year 1947-48:

President—Mrs. G. Paul Charlton.

Vice President—Mrs. C. W. Guildner.

Secretary-Treasurer—Mrs. R. N. Schaefers.

Haddon Hall will be the headquarters for the annual meeting of the Woman's Auxiliary to the American Medical Association, which will be held in Atlantic City, New Jersey, June 9-13, 1947. Requests for reservations should be sent immediately to Dr. Robert A. Bradley, Chairman, Subcommittee on Hotels, 16 Central Pier, Atlantic City, New Jersey.

The Auxiliary to the Omaha-Douglas County Medical Society met for their regular meeting and lunch at the American Legion Home on December 10 at which time Dr. G. Prentice McArdel talked on The Pre-payment Medical Care plan.

January 21st the Auxiliary met with the Medical Society to hear Mr. Charles Swart, headquarters staff executive in charge of public relations, and Mr. Frank Smith, executive director of Associated Medical Care Plans in America, discuss the Pre-Payment Medical Care Plan.

The Auxiliary conducted a social hour after the meeting.

Plans are being made to entertain the State Auxiliary at the time of the State meeting in Omaha in April.

Lancaster County Medical Auxiliary met at the home of Mrs. Harold Morgan, Lincoln, on Feb. 3rd for the regular sandwich-coffee luncheon. A talk was given by Prof. Dwight Kirsch of the University of Nebraska on the Art Exhibit of the Nebraska Art Association which was held during the month of March in Morrill Hall.

On March 3rd the sandwich-coffee luncheon was held at the home of Mrs. Everett Angle, Lincoln, and Mrs. C. C. Hickman, one of the members of the Auxiliary gave a talk on the various processes through which a bill passes in the legislature.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

February 28, 1947

Cash on hand February 1, 1947		$50,147.10
Receipts:		
From dues	$15,494.10	
From enrollment fees paid	622.00	
Taxes deducted from salaries	4.30	16,120.40
		$66,267.50
Disbursements:		
Claims paid	10,930.00	
Administrative expense	2,629.51	
Salary, Executive Director	150.00	
Secretary's fee	25.00	
Medical Adviser	50.00	
Attorney	50.00	
Advertising	262.30	
Printing and stationery	498.16	
Hospital reports	6.00	
Home office travel and expense	105.95	
Dues	11.54	
Postage	------	
Collection expense	6.93	
Refunds	38.25	14,763.64
Cash on hand February 28, 1947		$51,503.86
Bank Balance, February 28, 1947:		
Packers National Bank, Omaha		$50,370.85
First National Bank, Omaha		1,133.01
		$51,503.86

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

February 28, 1947

Assets:			
Cash in bank		$51,503.86	
Premiums in process of collection		6,637.68	
U. S. Bonds (cost plus accrued interest)		25,151.05	$83,292.59
Liabilities:			
Accounts payable, Blue Cross		$ 3,091.52	
Accounts payable, monthly invoices		406.19	
Accrued payroll taxes		11.60	
Claims payable		4,000.00	
Accrued audit expense		1,400.00	
Unearned premiums		25,188.16	
		$34,097.47	
Subscribers 4% surplus notes	$19,450.00		
Net income to date	29,745.12		
		$49,195.12	
			$83,292.59

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

February 28, 1947

	Month of February	2 Months to Date
Income:		
From dues	$16,553.12	$31,528.13
From enrollment fees	622.00	1,042.00
	$17,175.12	$32,570.13
Expenses:		
Claims	$10,870.00	$21,736.00
Administrative expense	2,949.93	5,721.03
Salary, Executive Director	150.00	300.00
Secretary's fees	25.00	50.00
Medical Adviser	50.00	100.00
Legal	50.00	100.00
Auditing	100.00	200.00
Advertising	17.74	347.51
Printing	82.20	732.36
Home office travel and expense	220.55	290.55
Dues	11.54	25.29
Postage	------	44.10
Taxes and licenses	1.50	3.00
Collection expense	6.93	9.26
Miscellaneous	10.00	14.50
	$14,545.39	$29,673.60
Net Gain	$ 2,629.73	$ 2,896.53

MEMBERSHIP SUMMARY—FEBRUARY, 1947

	Subscribers	Dependents	Total
1. Membership, February 1, 1947	9,530	13,611	23,141
Additions	929	1,207	2,136
Cancellations	192	249	441
Membership, March 1, 1947	10,267	14,569	24,836
2. Number of groups now enrolled			618
3. Number of groups added during February			35

FEBRUARY ENROLLMENT BY COMMUNITIES

OMAHA—15 groups, 274 members: Canteen Company of Omaha; Cudahy Packing Company; Dworak-Chapuran Mortuary; Internal Revenue; John P. Claassen Company; KBON Inland Broadcasting Co.; Kingan & Company; Arthur Murray Studio; Mutual Benefit Life Ins. of New Jersey; Mystic Beauty Shop; Stahn Mattress Company; The Spot; Tryon Typesetting Company; Washburn-Wilson Seed Company; White Line Transfer Company.

GILTNER—1 group, 9 members: G. G. G. Extension Club.

FAIRBURY—1 group, 29 members: Fairbury Public Schools.

GRAND ISLAND—1 group, 7 members: Grand Island Trust Company.

PLATTSMOUTH — 1 group, 28 members: Plattsmouth Mfg. Company.

OGALLALA—4 members.

FALLS CITY—2 members.

SIDNEY—1 member.

SUPERIOR—2 members.

CAMBRIDGE—1 member.

LINCOLN—9 groups, 474 members: Bankers Life of Nebraska; O Frey General Agency; City Water & Light Dept.; Health Food Service; Highway Equipment & Supply Co.; Lincoln City Library; Lincoln General Hospital; State Dept. of Roads & Irrigation; University Extension Group; Western Electric.

DAVID CITY—2 groups, 23 members; Business & Professional Women's Club; Levine Products Company.

FREMONT—1 group, 12 members: Platte Valley Cement & Tile Co.
MARQUETTE—1 group, 15 members: Parent Teachers Association.
KEARNEY—1 group, 4 members: Margaret's Shoppe.
BEATRICE—1 group, 10 members: Beatrice Beauty Shops.
SCOTTSBLUFF—1 group, 29 members; Deaver Distributing Company.
HASTINGS—1 member.
NORTH PLATTE—2 members.
ALLIANCE—1 member.
BENKELMAN—1 member.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

February, 1947

Number of claims paid	221
Number of services rendered	236
Females	147
Males	74
Subscribers	83
Dependents	138

Type of Service	Number	Amt. Paid
Anesthesia	3	$ 25.00
Appendectomies	39	3,900.00
Eye	4	37.00
Gall Bladders	3	425.00
General Surgery	14	775.00
Gynecology	22	2,145.00
Hemorrhoids	2	100.00
Herniotomies	3	300.00
Minor surgery	31	304.00
Nose and throat	4	40.00
Obstetrics	14	770.00
Orthopedics	10	395.00
Pathology	5	22.00
Radiation therapy	4	155.00
Tonsillectomies	28	960.00
Tranfusions	--	------
Urology	--	------
X-rays	36	325.00
Medical	14	252.00
	236	$10,930.00

Amount of claims in process of settlement $4,000.00

DEATHS

Hamilton William Hewitt, Lincoln, retired. Born in Wisconsin in 1850. Graduated from Rush Medical College in 1877. He came to Nebraska immediately after graduation and located in Friend where he retired in 1910, and moved to Lincoln. He was active in social, religious and fraternal work and for twenty years was a member of the board of directors of the People's City Mission. He died February 18, 1947. Surviving are his wife and a son, Dr. Linus G. Hewitt, of Lincoln, and a daughter also of Lincoln.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The following officers have been elected to the **Buffalo County Medical Society** for 1947: President, Wm. E. Nutzman, Kearney; Vice President, R. S. Johnston, Kearney, and Secretary-Treasurer, Thos. S. Elliott, Kearney.

Guest speakers at the regular monthly dinner-meeting of the **Adams County Medical Society** Wednesday, March 5 were Dr. E. J. Kirk, who addressed the doctors on "The Cardio-Vascular Renal Syndrome," and Dr. F. Lowell Dunn, who spoke on "The Medical Treatment of Thyroid Disease." Dr. J. P. Feese, president of the society, presided at the meeting.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Edward R. Slavig has located at Fullerton.

Dr. and Mrs. W. N. Blome, Stromsburg, were in Cincinnati in February.

Dr. and Mrs. H. E. Harvey, Lincoln, returned recently from a trip to Denver.

Dr. Frank G. Johnson, veteran of World War II, has opened an office at Columbus.

Dr. Lucien Stark of Norfolk, who has been ill for several weeks, has returned to his practice.

Dr. and Mrs. Harley Hotz of Omaha were severely injured when struck by a car on March 4th.

Dr. B. E. Reasoner, until recently associated with Dr. Calvin Davis of Omaha, has joined the Valentine Clinic.

Dr. J. W. Rouse and Dr. W. J. Reals, Omaha, both veterans of World War II, are planning to locate in Clarkson.

Dr. Charles and Dr. Elizabeth Swab of Omaha were on vacation in the south the latter part of February and early March.

Dr. Willard Roley, assistant superintendent of Hastings State Hospital, has resigned his position and is planning on locating in Portland, Ore.

Dr. DeWitt Lowe of Hastings is rejoining the mission work and will return to Korea in April. Dr. Lowe is now living at Colorado Springs.

Dr. S. E. Overmass of Gordon announced in February that he would discontinue active practice of medicine after nearly one-half century of service.

Dr. and Mrs. George DeMay, Grand Island, took a two weeks' trip in February, and Dr. DeMay attended courses at Cook County Graduate School of Medicine in Chicago.

Dr. Nathan Muskin, a graduate of the University of Nebraska in 1940, has located at Beverly Hills, Calif. Dr. Muskin was recently discharged as lieutenant colonel from the Army Medical Corps.

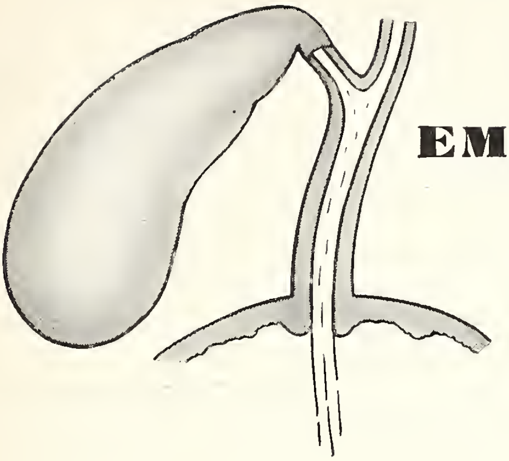
PRESERVATION OF CORNEAL TISSUE LIMITED TO THREE DAYS

Corneal tissue cannot be preserved longer than three days before transplantation a Cleveland physician has found after experimenting with six different preservative mediums, according to the current issue of the Archives of Ophthalmology, published by the American Medical Association.

The author—Charles I. Thomas, M.D., from the Department of Surgery, Division of Ophthalmology, Western Reserve University School of Medicine—used the eyes of rabbits for his experiment.

"Corneal tissue will remain clear and of normal thickness and can be used suitably for transplantation up to a period of three days," he states. "Thereafter the tissue becomes progressively hazy and thickened, being thus rendered unsuitable for grafting."

In order to obtain the best operative results in corneal transplantation, the author maintains that the material should be fresh and used shortly after it is removed from the donor. The Eye Bank for Sight Restoration, since its organization, has facilitated this rapid distribution.



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Two Weeks Surgical Anatomy and Clinical Surgery starting April 14, May 12, June 9.

Two Weeks Surgical Pathology every two weeks.

GYNECOLOGY — Two Weeks Intensive Course starting April 14, May 12, June 16.

One Week Course in Vaginal Approach to Pelvic Surgery starting April 7, May 5, June 9.

OBSTETRICS — Two Weeks Intensive Course starting April 28, June 2.

MEDICINE—Two Weeks Intensive Course starting April 7, June 2.

Two Weeks Gastroenterology starting April 21, June 16.

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DERMATOLOGY AND SYPHILOLOGY — Two Weeks Course starting April 14, June 16.

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JOURNAL PAYS TRIBUTE TO THOUSANDS OF DOCTORS BACK FROM SERVICE

The many thousands of experienced physicians who have returned from military service to practice in civil life are an "alert, well-trained and energetic" group, The Journal of the American Medical Association says in an editorial in its February 15 issue.

Entitled "A Tribute to the Young Physician," the editorial says:

"Since demobilization, many thousands of experienced physicians have returned from military service to practice in civil life. Remaining in the service to care for the sick and wounded in the peacetime army and in the armies of occupation in Germany and Japan are mostly recent graduates in medicine, many of whom received their professional training under the army specialized training program. The Deputy Surgeon General of the Army, Brig. Gen. Raymond W. Bliss, who recently returned from an inspection of medical installations in the European theater, has reported on the overall excellence of the service provided by these young physicians in Germany, France and Italy. General Bliss pointed out that during the war the medical corps was more of a cross section of mature American medicine. Today he said the cross section is of recent graduates who have completed their internships and varying degrees of medical and surgical residencies.

"These young physicians," he said, "are alert, well trained, energetic, careful of their examinations of patients and thoroughly interested in their work. Patient care is on a high level and compares favorably with the highest standards of American medical practice. Commanding generals of headquarters, without exception, expressed their appreciation of the quality of the medical officers in their commands. These encouraging words are a well merited tribute to the young physicians now serving this country; they are a tribute also to those who evolved our system of medical education and who maintain its standards."

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The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, May, 1947 No. 5

EDITORIAL

MEDICAL BILLS IN CONGRESS

The Journal each month publishes a list of medical bills in Congress. This is made possible through the office of the Council on Medical Service of the American Medical Association. The object of these reports is to have readers of this Journal kept abreast of the times on legislation pertaining to medicine and medical practice. They are printed in the form in which they are received. Obviously it is to the advantage of every physician to be informed on pending legislation which affects the medical profession and the health of the public. While it is our policy to supply this necessary information, we do not in any manner presume to influence the reader on the actual or potential significance of these bills. Whatever and whenever editorial comment is submitted it is the result of policy expressed by spokesmen authorized to speak for the Association.

It goes without saying that the physician who is conscientious in his efforts to study these bills would do well to apply to his Congressman for the original copy in the individual case. Physicians as free citizens are entitled to express their views not only among themselves but among their patients as well. It seems to us also that lawmakers, being human and eager to carry out the desires of their constituents would appreciate hearing these opinions especially if they come from their home doctor.

At this time there are two bills to which we feel certain your Congressmen would like your reactions: one pertains to the Taft bill which has to do with provision for medical care on a basis of need, funds to be allocated through the various states under control of local organization. This bill was analyzed in the Journal of the American Medical Association in the March 22 issue. There is also the bill which calls for the establishment of a cabinet post to administer all health and medical care activities under a unified system. It calls for a secretary of health and specifies that this secretary be a physician. There seems to be a good deal of controversy over this bill. On page 207 we present some of the testimony given at Senate hearings. Even many physicians seem to be misinformed as to the possibilities of such a bill; some openly contending it is a mysterious form of political medicine. It will be well for physicians to acquaint themselves with the nature of the two bills so that they may have reasonable knowledge concerning them. It is obvious that if the doctors' opinion is to count for anything it should be based on information carefully evaluated. It is only logical that our representatives in Congress would pay particular attention to the disposition of the home doctor regarding this type of legislation. Legislators are honest and they like to do a good job, and they do need to know how the constituents at home feel about matters which concern the whole country.

A MESSAGE TO PHYSICIAN VETERANS

It occurred to some of our readers that for posterity the Journal should devote a special issue to an historical account of the members of the Nebraska State Medical Association who served in the armed forces during World War II. Although this is a tremendous task, involving much hard work and a sizeable sum of money, the Journal nevertheless is willing to undertake this venture provided the cooperation of the medical veterans is enlisted. We offer this suggestion at this time and would like to hear from as many veterans as would like to write on the prospect of the success of such an issue. If the response is favorable, in the next issue there will appear a questionnaire to which all veterans will be requested to reply so that the work may be started immediately. It is hoped that our veteran members will appreciate the complexity of the task and that they will do everything possible to facilitate it. Please write your comments to the Editor of the Nebraska State Medical Journal, Mezzanine, Medical Arts, Omaha, 2.

PLAIN SPEECH

There are now about 130,000 members of the American Medical Association, and if I say that 2,500 of them are active in protecting the interests of the public and medicine, I would probably exaggerate. These men are devoting a tremendous amount of time and thereby cutting their own incomes to protect the profession and the public. It is somewhat discouraging to them sneeringly to be referred to by their associates in medicine as "medical politicians." Were it not for the efforts of this group, all of us would now be practicing under a plan of bureaucratic regimentation. If the members of a county society do not like the way their affairs are handled, then they should attend meetings and change the methods and their officers. If they do like them, then they should attend and give their officers support. —LOUIS H. BAUER, President-elect, Medical Society of the State of New York.

CORRESPONDENCE

Omaha 2, Nebraska,
Rm. 414 P. O. Bldg.
April 15, 1947.

TO WHOM IT MAY CONCERN:

Of recent date inquiries have been received relative to the mailing of medicines (pursuant to prescription or otherwise) to consumers (patients) by physicians and retail pharmacists.

Pursuant to these inquiries the following from the Office of the Commissioner of Narcotics, Bureau of Narcotics, Washington, D. C., is quoted:

"It is the opinion of the Bureau that opium and its derivatives are poisons and, therefore, come within the provisions of paragraph 4 (c) of section 588 of the Postal Laws and Regulations. The Post Office Department has concurred in this opinion. Since Codeine is a derivative of opium, it could not be sent through the mails to a non-registrant whether in tablet form or as a mixture in a cough preparation. The physician should be informed that it is not considered good practice to prescribe narcotic drugs to a patient living at a distance and whom he does not see frequently."

NEW SUBCOMMITTEE ON CANCER

A new subcommittee on Testosterone and Mammary Cancer has been elected to consist of Drs. Ira Nathanson (Chairman), Earl T. Engle, Willard Allen and Frank E. Adair. This subcommittee, under the direction of the Therapeutic Trials Committee, will act in advisory capacity in research on the use of "male" hormones in the treatment of cancer. Funds have been made available for investigators through private sources. This research will be directed toward one particular phase and will have its place in the overall fight on cancer. The first meeting of the subcommittee will be held early in May.

MEDICAL TESTIMONY

An interesting symposium on the subject "How can qualified medical testimony (scientific proof) be attained in Workmen's Compensation controversy" is scheduled for Wednesday, June 11 at 9 a.m., during the Centennial session. The program is under the Section on Preventive and Industrial Medicine and Public Health. There is a roster of excellent medical, legal and industrial speakers and discussants. It will be an audience participation program. Mr. J. W. Holloway, Jr., Director, Bureau of Legal Medicine and Legislation, will be the moderator.

DR. F. A. ELLIS ADDED TO STAFF OF COUNCIL ON PHARMACY, CHEMISTRY

Fred A. Ellis, M.D., has joined the staff of the Council on Pharmacy and Chemistry of the American Medical Association, Chicago. He will assist Austin E. Smith, M.D., Secretary of the Council.

Dr. Ellis received degrees of B.A., B.S. and M.D. from the University of Minnesota. Before joining the council, Dr. Ellis did postgraduate work at the University of Minnesota Hospitals in obstetrics and gynecology. Prior to that time he spent several years in the army as a flight surgeon, and also had considerable experience in private practice and industrial medicine.

Compound Fractures*

W. L. SUCHA, M.D.
Omaha, Nebraska

The compound fracture at once presents two immediate and two remote problems. First hemorrhage and shock, later infection and non union.

Singuarly enough hemorrhage is not so often a major problem even in the crushed and badly mangled extremity. Usually removal of the amature applied tourniquet controls the bleeding.

Fortunately most fractures do not compound in a manner to tear important vessels. 90% of the compound fractures of the tibia are on the anterior or medial surface. Those of the feet are nearly always on the dorsal surface. Of the femur at least 85 or 90% are on the anterior or lateral surface. As a matter of fact, the only frequent compound fracture locations which regularly threaten important vessels are those of the lower end of the radius (often on the anterior surface) and the lower end of the humerus (frequently anterior).

On the whole, I think I can safely say that hemorrhage is the easiest problem to handle and causes less concern and grief than either of the other three problems.

Shock is a variable condition and certainly so big a problem that the allotted time would not be sufficient to even enumerate the theories of its physiology. However, I do feel that a few words must be said regarding what constitutes a dangerous state for the injured person at hand.

Unfortunately there is no quick and ready method of determining the "shock level" that the patient has attained. Blood pressure can be most misleading. For instance, a patient may still be in the state of so-called primary shock (faint) and have virtually a zero blood pressure and yet not be in any real shock at all. On the other hand, it is generally agreed that when real shock has progressed, to the point of a marked fall in blood pressure, the patient is beyond recall.

To me, a patient who is cold, clammy grayish, not white, almost entirely without complaint, reacting slowly to his or her surroundings, even in the presence of a fairly decent pulse, presents a dangerous state. If the patient has lost little or no blood, the laboratory may be of some help with a hemo-concentration report. This is too often undependable because the doctor's knowledge of the amount of blood lost is too inaccurate. For instance, if a patient has lost a large quantity of blood, which normally gives him a low blood count, low hemoglobin, and low concentration, the report from the laboratory of normal hemoglobin and concentration in reality would mean a hemo-concentration, severe or not, in proportion to the amount of blood lost and in accordance with the amount of hemo-dillution that should normally be present under such circumstances.

Without further dilation on shock, I can say that in my experience, there have been very few cases who I felt, would be injured by immediate treatment of the wound, and equally few who I thought, would be benefited by delay so far as their shock alone was concerned, to say nothing about the hourly mounting chances of infection and consequent osteomyelitis, septicemia and gas gangrene.

Proceeding then with the badly injured individual with one, two or more compound fractures and definitely in shock:

1. Apply necessary pressure dressing (rarely a tourniquet) to control further blood loss.

2. Pack the entire traumatized area in ice (not ice bags). This in itself, according to recent research of physiologists is excellent treatment for shock much of which, according to Scudder and his co-workers, is due to plasma loss at the sight of trauma.

3. Heat to the rest of the body.

4. Plasma intravenously and whole blood if available.

5. The Russians report valuable aid from intravenous administration of alcohol with a small dose of barbiturate. Their theory is that the most valuable asset to the treatment of shock is rest. Their contention is that they can procure a prolonged natural sleep by the administration of alcohol intravenously together with a very nominal amount of barbiturate. They further claim that the alcohol invariably results in relaxation and sleep when administered intravenously.

---

*Presented as part of a symposium on Fractures before the Omaha Mid-West Clinical Society, October, 1945.

6. Morphine sufficient to control pain.

7. Avoid stimulants. However Len Stern of Moscow advocates injection of potassium salts into the ventricles stimulating the vegetative nervous system long enough to boost the apparently hopeless case over the hump until replacement therapy can take over.

8. The necessary cleansing, 15 or 20 minutes continuous washing, with warm normal salt solution, conservative debridement, and blood vessel ligation using little or no anesthesia or perhaps a little local.

I have completed amputation without anesthesia and without pain after 45 minutes of ice and 20 minutes of tourniquet.

9. Secure best possible apposition of fragments.

10. Shake sulpha into wound.

11. Closure.

12. Perfect immobilization.

Let us now consider the patient with a compound fracture of the lower leg or arm or with a femur that has punctured through the skin. True, these people all have some shock, but they are usually perfectly safe in taking an ether anesthetic carried lightly not necessarily to a point of relaxation.

It has been my observation that patients in moderate or even moderately severe shock appear to improve under ether anesthesia. This gives some credence to the Russian claim mentioned earlier in this paper, where they give so much credit to rest as a treatment of shock. Perhaps it is the relaxation that comes with a light ether anesthetic that seems to help; perhaps it is the effect on the coronary blood vessels or the blood vessels generally. In any event, I have more confidence in ether than in all other anesthetics, and I am not at all timid about administering a light ether anesthetic to a patient who is in even moderately severe shock.

PROCEDURE

1. Make the opening large enough to visualize all the damaged tissue.

2. Clamp or tie bleeding vessels.

3. Wash, wash, and then wash some more at the same time conservatively debriing all tissue that may not survive (don't forget where the nerves are). I feel that if one should spend 10 minutes scrubbing his hands which he intends to cover with gloves, a contaminated wound should get 20 minutes if one expects to obtain primary union.

4. Reduce the fracture. If one has the advantage of a modern fracture table it is well to place the member in fixation on the table before beginning the wound treatment. By this means it is possible (in most instances) to retain the good reduction which is accomplished with the wound open.

Here arises the debated question of whether it is permissible to use internal fixation in compound fractures. Personally, I rarely find it necessary. However, in the presence of a fracture comminuted into several fragments, with the wound well cleansed and debried within the first six-hour period, and the aid of chemotherapy and non-reacting metal, internal fixation is safe enough in the hands of the experienced operator.

I have no quarrel with a skilled traumatic surgeon or orthopedic surgeon who chooses to use a vitalium screw or a vitalium plate in maintaining a better fixation in a compound fracture which has been debried and cleansed. However, I do feel that it is a little dangerous to spread a gospel favoring internal fixation of fractures, particularly compound fractures.

5. Chemotherapy is without question the greatest boon that has been added to the armenentarium of the bone surgeon in a decade. I cannot however leave the chemotherapy question without again reiterating what I have so often said since its very advent; that it could well become a boomerang by lulling the innocent and lethargic doctors into a false sense of security in which they consider a compound fracture sufficiently treated because they poured some sulpha into the wound or even poured it onto the skin and outside of the wound. This I predicted in the beginning, but the frequency with which I have known it to happen has been far greater than was anticipated. Why? Because it is human nature to drop what is work and leap to what is easy.

Again let me repeat that the beneficial, yes, even life saving powers of chemotherapy in compound fractures must not be underestimated. Yet there can be no doubt that if the operator was forbidden to do both, that is thorough cleansing with debridement or instill sulpha and/or penicillin, his end results will be universally better with more primary unions by using the former.

6. Closing the wound. Personally I feel that it is most advisable to close the wound. A reasonably safe yard stick to go by is:

Complete closure during first 6-hour period following injury.

Loose closure during second 6-hour period.

Semi-closure that is a stitch about every 2 inches during third 6-hour period.

No closure after 18 hours.

Pack with ointment impregnated gauze after 24 hours. I feel that it is the mechanical behavior of ointment impregnated gauze that serves the desired purpose, and as far as I am concerned it matters little whether you use gauze impregnated with sulphathiazole ointment, gauze impregnated with Vitaman A and B ointment or any other kind of ointment as long as the ointment is non-irritating. It is the mechanical wick-like action of ointment impregnated gauze that is sought.

7. Immobilize in plaster.

Plaster of paris, is the choice of immobilizing materials. Splints never fit accurately because they are made in various sizes to almost fit. Plaster of paris splints wrapped together with muslin or other bandage, do not immobilize as well as a circular cast and in some respects are more hazardous. The application of plaster of paris splints wrapped together with bandage, has to be done with equal skill and after the splints have been applied, in the event that there is swelling, the only chance of relieving this patient, is to cut the bandages and rewrap. This may necessitate two or three cuttings and two or three rewrappings, during the course of which, there would almost surely be a slipping of the reduction. In any event such things could happen when a cast has been applied. If the swelling necessitates relief from pressure the cast can be split in its entirety and if it is not too heavy, it will automatically spread. The opposite or unsplit side acting as a hinge, and permitting the member to swell and still maintain perfect approximation and perfect immobilization. When the swelling starts to recede, the cast can be very readily pushed back together and fastened with adhesive tape.

8. Elevate, apply ice bags.

9. Anti-tetanus serum and gas gangrene antitoxin.

In the ordinary compound fracture that has not been badly contaminated with dirt, dust, etc., I use the prophylactic dose of anti-titanic anti-gas gangrene antitoxin. However where there has been extensive damage to muscle tissue and where there has been extensive contamination, dirt and in many instances, manure, I feel that in spite of a careful debridement and a thorough washing that it is still hazardous to depend on the prophylactic dose of these two highly infectious agents. I use a therapeutic dose of about 10 or 20 thousand units depending on the size of the patient and the extent of the tissue destruction and contamination.

10. Continue chemotherapy.

Naturally delayed or non-union is bound to be more frequent in compound fractures than in identical fractures that are not compounded. This is to be expected since nature's first step in the repair of bone (the blood clot) is missing. Early handling of the wound with early closure, partly at least, restores this aid.

Sulpha, apparently does not delay union. I would enumerate the causes of delayed and non-union in the following sequence:

1. Loss of osteoblasts through the open wound.

2. Fracture so located as to deprive one or both fragments of good blood supply.

3. Poor immobilization.

4. Inadequate reduction.

5. Internal fixation that prevents continued impaction of the fragments. Examples: double pin traction, Lane plates.

6. Tight encircling wires or bands.

The factors which help keep the percentage down are:

1. Early closure.

2. Perfect immobilization.

3. Best possible reduction.

4. If internal fixation is used there is no doubt that vitallium screws or nails which traverse the line of fracture aid rather than hinder union.

Clinical Manifestations of Syphilis*

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In order to make a diagnosis of syphilis one must be syphilis conscious, the usual course of the disease must be known, the time element must be considered and the variations from the normal usual course must be recognized.

After invasion, the organisms increase rapidly in number and escape into the lymphatic channels which drain from the point of entry into the blood stream. They continue to multiply until the tissue defense reaction and treatment are powerful enough to destroy or inhibit them. Then local healing ensues, but after a time the body defenses lose their restraining powers and the organisms again increase in number. These cycles occur endlessly throughout the course of the disease.

Within a few hours after infection the spirochetes enter the lymph channels. Within a few days they have entered the blood stream and remain there for the next three or four weeks. The initial lesion or chancre now appears, typically as a very firm, cartilaginous feeling papule, which is not tender or painful. As the papule enlarges and more plasma cells push into the lesion, the blood circulation within the papule itself is diminished and in approximately half of them this results in an erosion of the center portion of the papule. This produces the lesion known as the Hunterian chancre. Because of the loss of superficial substance, there is usually a rather profuse outpouring of serum containing many infecting organisms. Sometimes in the male but often in the female, this primary lesion is modified to the point where little infiltration is detectable, only a slight redness is present and the lesion may be represented only by a small patch of edematous swelling, or there may be very superficial erosion, with rather profuse discharge. Some one has said that there is no such thing as a typical chancre although there is such a thing as a typical Hunterian chancre. Nearby lymph nodes may present shotty enlargements although it is more common to find a large swelling of only one gland—"the primary bubo". Enlargement and erosion of the primary lesion may continue for a few days to three or four weeks.

Another period of latency now occurs, often referred to as "the second period of incubation", varying from one to eight weeks although the average is about two weeks. The secondary eruption now appears.

It is well to remember that any stage of the disease after the chancre may be missed. As a rule, however, about two weeks after the appearance of the chancre, mild to severe malaise with slight angina develops and is accompanied by the appearance of a mild to profuse, dull red, macular eruption, closely simulating measles but, in the main, limited to the torso and extremities with accentuation on the flexor surfaces. There are no symptoms of coryza. This is the early secondary eruption of syphilitic roseola. The tongue is usually coated, while a diffuse petechial eruption is often present on the soft palate and pharynx. Within a week; the malaise diminishes. Within two weeks after the roseola appears the chancre is usually well on the way to healing.

One of the papular eruptions frequently appears as the roseola fades. This latter eruption, the late secondary, is classified morphologically. It may be either the large or small papular, or the follicular type. The large and small papular lesions are alike except for size. The lesions may be sparse or profuse, are more widely distributed than those of the macular stage and do not show a predilection for the flexor surfaces of the body. There is frequently an accentuation about the face, especially the forehead, near the hair line, producing the so-called "Corona Venerealis" and near the naso-labial folds. In patients with negro ancestry, the lesions are often annular and not infrequently present a fantastic network of circles and segments of circles. The papular lesions have sloping borders, are nearly flat topped, the surfaces have a "varnished" appearance and the color is a peculiar yellowish red, referred to as "raw ham" or "copper". Neither descriptive term is accurate and the color has to be seen several times in order to be fixed in the mind of the examiner. The idea that this peculiar coloring is present in all syphilitic eruptions is in error. It is present only in the large and small papular lesions.

The late secondary follicular stage is characterized by a widely disseminated patchy eruption, without predeliction for either extensor or flexor surfaces. The patches are poorly defined and are composed of discrete papules at the hair follicles. They are usually the color of normal skin or very slightly erythematous, and the older lesions are capped by fine adherent scales. Where the patches are very well developed the condition may simulate psoriasis and is referred to as the "psoriasiform syphilid". In the follicular stage of the disease there is often a patchy, "moth eaten" alopecia involving especially the posterior portion of the scalp, but not limited thereto. These patches of alopecia correspond in size and shape to the follicular groupings elsewhere on the body. The development of iritis as a manifestation of the disease is much more common with the follicular than with the large or small papular type of eruption.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

The papular stage may be said to remain for approximately four weeks although the period may be longer or shorter. The examiner can reasonably estimate that the patient presenting the papular stage of eruption acquired his infection ten to fourteen weeks previously. This is true, of course, only in patients who have not received antiluetic treatment. Neither is it reliable in patients who contracted both gonorrhoea and syphilis from the same exposure but in whom the gonorrhoea was diagnosed and treated with penicillin prior to the appearance of symptoms of syphilis. The 100,000 to 300,000 unit doses of penicillin usually given for the cure of gonorrhoea are too small to cure syphilis and serve only to delay the appearance of symptoms of the latter disease.

Although mucous patches may appear during the roseolar stage, they are much more common during the papular stage. They appear, not only in the mouth, but in the rectum and vagina as well; the lesions contain many spirochetes and are highly infectious. Papular lesions which appear in warm moist areas are softer, usually larger, and more inflammatory. Not infrequently they are eroded, covered with a slimy coating which contains many spirochetes and are therefore highly infectious. These lesions are flat-topped and although usually discrete, may be confluent forming large patches and are more common about the nates, the intergluteal crease, perineum and under pendulous breasts. Occasionally they are seen in the axillary region, between the toes, behind the ears and have been reported even between the folds of a flabby neck and in a deep dimple on the chin.

When a patient with syphilis has been under treatment but has received insufficient treatment to produce a cure and subsequently has a recurrence, the eruption recurs in exactly the same stage in which it was stopped by treatment but takes on some of the characteristic manifestations of a later stage. For example, if a patient begins treatment during the papular stage, his eruption clears and following cessation of treatment, should the eruption return, his lesions will again recur in the papular stage but there will probably be many less of them, they will be more erythematous, usually larger and with a marked tendency to annular configuration.

With the clearing of the early or late secondary eruption the disease enters the latent stage. The duration of this stage may vary from a few months to many years. Indeed, there may be no further eruptive manifestations of the disease. Because syphilis is a disease of exacerbations and remissions, the latent stage is characterized by periods of activity manifested by a serologic test with rising titer and frequently by the re-appearance of one or more lesions of the skin or mucous membrane. As one would expect, although only the lesions on the surface can be seen, there are recurring lesions in other organs of the body as well. These destructive processes heal with scar tissue formation, thus there is a slow intermittent loss of parenchymal tissue.

The latent stage may terminate with the appearance of the third stage or "Gumma" formation. This lesion, from the standpoint of pathological physiology, is a severe allergic response to the presence of a very few organisms. Pathologically, the same changes seen in the chancre are repeated, namely, endarteritis, with intimal proliferation, ischemia with local edema, erosion and healing takes place by scar tissue replacement. While these lesions may occur anywhere, only the appearance on the skin will be described. It is well to note that this severe destructive process is often localized by some trauma. As is to be expected, therefore, the tertiary lesion is most commonly located on the forehead, shoulders, buttocks, elbows, knees, shins, hands or near the sterno-manubrial joint. The predominating element in this lesion is the papule or nodule. It individually goes through a cycle of proliferation, ischemia, often erosion and scar tissue replacement. The nodules tend to be arranged in circles or segments of circles. As the individual nodule enlarges it tends to become circular itself and as its edges intersect those of other lesions, the entire lesion, as well as the individual nodule takes on a more or less typical picture in which the outstanding characteristic is a polycyclic border. As the lesion heals, the scar retains the same characteristics and diagnosis of the disease is often possible from the scar alone. Gummata may heal only to be followed by other new lesions in the nearby tissue or other gummata may develop at locations remote from the first site. Gummata of the mucous membrane, bone and other organs reveal the same characteristics.

It is important to note that in the later stages of syphilis, the serologic tests for syphilis are not always positive. Particularly is this true in bone syphilis.

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URGE WIDER USE OF RADIUM FOR ASTHMA TREATMENT IN CHILDREN

Treatment of 34 asthmatic children with radium proved to be so encouraging that three Baltimore physicians urge more extensive use of this new type of therapy in the April 12 issue of The Journal of the American Medical Association.

The physicians—Arthur T. Ward Jr., Samuel Livingston and Dean A. Moffat, from the Departments of Otolaryngology, Pediatrics and Allergy, division of the Medical Clinic, of the Johns Hopkins University School of Medicine and Johns Hopkins Hospital—state that 15 patients were completely relieved of asthmatic attacks; five children were relieved to such a degree that they have only an occasional mild attack; three children showed moderate improvement and 11 have obtained no relief.

The 34 patients were all under 14 years of age. They were chosen for this study because they had recurrent attacks of asthma and masses of adenoid tissue in the nasopharynx (the back of the nose). Twenty-four children had a family history of allergic disease and 18 children had allergic manifestations besides their asthmatic symptoms.

All of the children received complete physical examinations. The first attack of asthma in 22 of the 34 children was precipitated by a respiratory infection; for example, a common head cold, tonsillitis, pneumonia or the respiratory infections which are so often a part of the contagious diseases of childhood.

In 16 patients attacks developed after exposure to the common inhalants—house dust and animal danders or orris root and the common pollens.

Treatment of each child consisted of applications of radium to each side of the nasopharynx once each month for an average of four treatments. The immediate effect of the radium on the respiratory tract differed in these children. Many complained of sneezing and nasal discharge for 12 to 48 hours after the exposures. In a number of children asthmatic symptoms developed several days after the first or second radium treatment, and the attacks were occasionally severe.

In conclusion, the authors state that the "object of this report is to arouse interest in this new form of therapy, so that its larger use may prove and extend the true value that we consider evident from the results of this detailed study and from experience with hundreds of cases not included herein."

DISTINGUISHED ENGLISH MEDICAL MEN TO APPEAR ON A. M. A. PROGRAM

Several distinguished English medical men will take part in the General Scientific Meetings which will be held in connection with the centennial session of the American Medical Association to be held in Atlantic City, June 9-13.

"The programs of the General Scientific Meetings," says an editorial in the April 5 issue of The Journal of the American Medical Association, "provide for discussions of subjects of special and timely interest to the medical profession and for panel discussions of the modern management of heart disease, emergency surgery and antibiotic therapy."

Participating in the programs and in the panel discussions will be:

George W. Pickering, professor of medicine at the University of London and specialist in vascular diseases and high blood pressure.

Herbert John Seddon, professor of orthopedic surgery at Oxford University, who, in 1930, served as instructor of surgery at University hospital, Ann Arbor, Mich.

Sir Howard Florey, professor of pathology at Oxford University since 1935 and noted for his clinical research on penicillin.

The centennial committee also announces that the Philadelphia Festival Orchestra, made up entirely of members of the world famous Philadelphia Orchestra, will provide music for the opening general meeting on Tuesday night, June 10, under the leadership of concertmaster and associate conductor Alexander Hilsberg. Mr. Hilsberg was recently appointed head of the orchestra department of the Curtis Institute in Philadelphia.

The Board of Trustees announces a dinner to be given to the presidents and other officers of organizations associated with medicine, distinguished publishers, industrialists and statesmen. This dinner will be held Saturday evening, June 7, in Atlantic City. The speakers on this occasion will be General Omar Bradley of the Veterans Administration, Washington, D. C.; Basil O'Connor, New York, chairman of the American Red Cross and president of the National Foundation for Infantile Paralysis, and H. W. Prentis Jr., president of the Armstrong Cork Company, Lancaster, Pa.

Ankylostomiasis

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Of all intestinal parasites carried by veterans of the Pacific Theater the most frequently encountered are E. Coli, E. Histolytica and hookworms. While amoebiasis is an endemic disease in Nebraska(1,2,3) the appearance of hookworm infestation is an unusual event.

Transmission of this infestation is possible through the alimentary tract, but this is not the rule. Usually it is acquired through contact of the bare human skin with the infested soil. Feces containing hookworm eggs will produce highly motile rhabditiform larvae 24 to 48 hours after being deposited in or on warm soil. Soon they undergo a metamorphosis into the very active infective or filariform larvae.

Fertilization with human feces, the so-called "night soil", and the common habit of the Oriental peasant to till his fields in bare feet create ideal conditions for the propagation of the parasite: Attracted by the skin temperature the filariform larvae penetrate the soles of the human feet and begin their cycle of development, which carries them through lymph and blood channels to the lungs of their human host. There they gain access to the pulmonary alveoli and the bronchial tree, whence they enter the small intestine by way of the pharynx.

Many combat units had to dig in at recently fertilized fields, thus allowing the skin of their hands and faces to gain intimate contact with the soil. After being dug in at such a field during the battle of Saipan, 30% of the survivors of an Infantry Company had incurred hookworm infestations while only 2 to 5% of the units on its flanks were affected. Many of these soldiers acquired additional helminthic or protozoan parasites(4,5,6).

In textbooks of Tropical Medicine the following clinical symptoms are cited as characteristic for hookworm disease:

1. "Ground itch" and regional urticaria occurring during the period of penetration of the skin by filariform larvae.
2. Eosinophilia of 15-35%.
3. Anemia.
4. Retardation of growth.
5. Edema due to malnutrition.
6. Lassitude and fatigue.

These are the symptoms of individuals who have been raised and are living in endemic hookworm regions. They and our Midwestern Veteran present quite different pictures:

1. The Midwestern veteran acquired his infestation in an atmosphere of danger, terror and excitement, paying little attention to personal discomforts, such as an "itch" on hands or face, particularly since he often harbored fleas and was extensively attacked by mosquitoes. He rarely will accommodate his physician with a positive history of ground itch.

2. In fresh hookworm infestations the eosinophilia of the peripheral blood ranges from 40 to 90%. Gradually, during the following 18 to 24 months, it subsides to levels of 5 to 15%. A spectacular peripheral eosinophilia is rare in chronic cases. The degree of eosinophilia is in no way indicative of the severity of infestation(7).

3, 4, and 5. A moderate anemia or none at all is found in the hookworm infested veteran who enjoys adequate diet and healthy surroundings. He was infested as an adult. He had a hookworm-free childhood and adolescence.

6. Mental and physical fatigue, inability to concentrate and lassitude are observed frequently. However, many of these cases constituted multiple infestations, harboring protozoan parasites besides the Helminths, so that the above symptoms cannot always and exclusively be attributed to hookworms.

In the early stages of the infestation the migration of filariform larvae through the alveolar wall of the lungs may manifest itself as chest pain. The author recalls the case of a medical officer who had several electrocardiograms taken before eosinophilia and subsequent demonstration of hookworm eggs disclosed the etiology of his precordial pain. Chest pain, however, is a complaint of the invasion phase and will hardly be encountered in returned veterans except as an item of his history.

Allergic manifestations are not rare in ankylostomiasis: Generalized stubborn urticaria, atopic dermatitis, rhinitis and asthma have been observed. The author recalls the case of a hookworm carrier in status asthmaticus who was cured by antihelminthic therapy.

Epigastric pain is a frequent complaint. At times it may present a diagnostic problem with definite epigastric pain on pressure, similar to those of a duodenal ulcer, and gastric hyperacidity. The eosinophile count on the other hand may not be more than 5% in chronic cases.

The diagnosis of hookworm infestation depends on the demonstration of ova in the patient's stool. There is an uncertainty of demonstrating an ovum in a direct fecal preparation, even in heavy infestations. Concentration methods have to be called upon in which the ova are floated to the top of a solution of higher specific gravity than their own. Faust's Zinc Sulfate floatation method(8) or modifications thereof are in extensive use. Their advantage is the simultaneous floatation of Helminth eggs as well as of protozoan cysts. In large surveys they are the method of choice. The technique is fairly simple but special attention has to be paid to technical details, such as the maintenance of the specific gravity of the Zinc Sulfate solution. It is a critical one for the floatation of protozoan cysts. Unless it is scrupulously maintained at 1.180 the cysts are either destroyed in a heavier solution or fail to float in a lighter one. Numerous failures to diagnose cases of Amoebiasis can be traced to such inadequacies of the procedure. The following procedure is simple enough for the average office laboratory:

EQUIPMENT NEEDED

1. One test tube (½x5 inches).
2. One microscopic slide.
3. One cover slip.
4. Zinc Sulfate solution, obtained by dissolving 331 gms. of granular ZnSO4.7H2O U.S.P. in one liter of water. (Check specific gravity at 1.180).
5. Applicator stick.
6. Microscope.

PROCEDURE

In a test tube about 1 cc. of formed stool is thoroughly mixed and emulsified in 5 cc. of the salt solution. Enough of the same is added under steady stirring with an applicator stick until the top of the mixture is even with the brim of the tube. A clean cover glass is placed on top and permitted to remain in contact with the top of the mixture for forty-five minutes. During this time all bodies of lighter specific gravity than that of the solution will float to the top, all heavier particles sink to the bottom of the tube. After the above named period of time has elapsed the coverglass (and adhering to it the egg-containing top layer of the solution) are carefully removed and placed on a microscopic slide with the adhering droplet down. Hookworm ova can be seen under low power magnification as well as the eggs of other Helminths, such as Ascaris Lumbricoides, Trichuris Trichiura, Hymenolepis Nana, Hymenolepis Diminuta and the Taenia. The ova of Clonorchis Sinensis will not float however, and those of Schistosoma Japonicum appear deformed and shrunken. A simple staining fluid, such as D'Antoni's Iodine will be helpful in the identification of Protozoan cysts.

Individuals harboring hookworms may be separated into two groups:

1. Hookworm-carriers, who show no clinical evidence of disease.

2. Patients with hookworm disease who present symptoms and subjective complaints.

While therapy is not justified in the first group, particularly since their small number of parasites is subject to spontaneous gradual reduction, the second group is in need of treatment. Medical officers in the Service as well as practicing physicians have been disappointed in the therapeutic efficiency of Tetrachlorethylene. In many instances they have been unable to confirm claims of textbooks of Tropical Medicine to the effect that one course of treatment will remove 90% of all worms. Repeated courses of Tetrachlorethylene alternating with "Crystoids" anthelminthic (Caprokol) were necessary to reduce the number of ova in the stools.

In the light of these experiences a recent publication by Most, Hayman and Wilson(5) is of interest. In a survey of returnees from the Pacific these authors found 65% of all hookworm infestations due to Ankylostoma Duodenale, while only 35% were caused by Necator Americanus. In their experience Tetrachlorethylene proved to be efficient in Necator infections but much less so in Ankylostoma cases. Further investigations may support these findings and prove that therapeutic failures were noted in infestations with Ankylostoma Duodenale, whereas a better response is to be expected in Necator Americanus. Different therapeutic standards may have to be adopted for these two species of hookworms.

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Nasal Physiology in Dietary Deficiency*

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During the past five or six years otolaryngologists have become aware of a rapidly increasing nasal syndrome. This has been described by Williams(1) as "Intrinsic allergy syndrome" and by Roberts(2) as "A new sinus syndrome". However, I am of the opinion that the symptoms described are frequently a local manifestation of a generalized dietary deficiency. The syndrome is as follows:

Subjectively there is—

1. Nasal stuffiness or transient obstruction.
2. Post nasal discharge of a thick tenacious mucous.
3. Discharge of a clear mucous from the nose accompanied by attacks of sneezing.
4. All of the above symptoms are increased by wind, dust, bright sunlight or exposure to sudden changes in temperature.

Objectively—

1. The mucous membrane is pale. This may vary from a dull purple to a pale grey.
2. The mucous membrane appears boggy and wet.
3. There may be polypoid degeneration of the membrane, particularly in adults.
4. Nasal obstruction which alternates from side to side.

There are many allergic conditions which produce the symptoms as described in this syndrome, but these are of a milder type than those common in true allergy. Skin tests, either by the scratch or intradermal procedure have been disappointing due to the fact that most of them are negative. Occasionally, although all of the food tests are negative, there may be a positive reaction to one of the pollens. This condition is not seasonal but is present the year around. The best one word description of this condition is that of Lillie(7) who described it as a "wet nose".

The nasal mucosa, normally, is a pale vermillion. The architecture of the superficial vessels and especially the turbinates resemble the parallel pipes of a heating or cooling system. Numerous communications exist at short intervals between the artery and vein.

The supply and distribution of the blood of the erectile tissues of the turbinated bodies is regulated somewhat by the swelling of the radicle artery impinging on the vein as they lie close together or cross one another in bony canals. This alone does not meet the requirements of the nose. A more delicate control is effected through the agency of smooth muscle cells distributed about the arterial and venous twigs and their innervations.

The erectile tissue in the nasal mucosa consists of spaces obtaining their blood supply from small surface capillaries originating from the post nasal artery and emptying into the submucosal veins. The walls of these vessels are plentifully supplied with elastic tissue and muscle fibers reaching into the lumina as trabecular prominences.

Stimulation by the inspired air plays some part in the regulation of patency through the autonomic system. The blood vessels reaching the nasal cavity from the pterygoid fossa are innervated almost entirely by branches of the sphenopalatine ganglion. Concerning the regulation of erectile tissue, Schaeffer(3) has this to say:

> "The control of nasal congestion and glandular activity are not under the power of the will since unstriped or pale muscle and glands are involved. It is well known that the central processes of the cell bodies of the sympathetic afferent neurons synapse with either somatic or sympathetic efferent or motor neurons within the central nervous system in the completion of reflex arcs. Experimental evidence tends to show that afferent somatic neurons participate in the formation of reflex arcs in which the efferents are of the sympathetic type. It is therefore possible that an impulse from the nasal cavity meant primarily to bring about reflexly a pure motor response of striated muscles results in a vasomotor phenomenon as well, e.g. turgescence of the erectile tissues of the nose."

Schaeffer also points out that though the turgescence and depletion of the nasal mucosa is commonly a simple reflex phenomonen, the erectile tissue of the nose is readily influenced by psychic states indicating a connection with the vasomotor centers and cerebral cortex.

A large portion of nasal ailments of nervous origin have for their basis a derangement of the autonomic nervous system. This system functions below the level of consciousness, is not subject to control of the will and serves to carry on the purely vegetative processes such as vascular tone, the action of smooth muscle fibers and the regulation of glandular secretion. It therefore enters largely into the emotional states which accompany these bodily functions.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

The highly delicate mechanism governing the humidifying action of the nasal mucosa is subject to various stimuli effecting the skin surface.

Lewis(5) and his associates showed that the skin of human beings sensitized by exposure to physical irritants such as ultraviolet light and burning, further exposure to such irritants after a latent period produces a reaction indistinguishable from that produced by the injection of Histamine.

Kellaway(4) suggests that the tissue changes that take place in the nose are due to cellular injury with the release of histamine which his been shown to be a normal constituent of most tissues. Histamine released into the tissue spaces acts on the arterioles and capillaries and produces arteriolar constriction and capillary dilitation in human beings. In addition permeability of the capillary walls increases and localized edema occurs subsequently.

With such a profuse vascular system, one can readily appreciate the efficiency of the nose as a heating and humidifying system and at the same time be impressed with the potentialities of trouble when such a system through a derangement of its nervous supply either overflows or collapses.

Many of the reactions seen in the nose are no doubt due to a lowered resistance or atonic condition of the nervous and vascular system. Diet, particularly a high fat diet has a definite effect on the tissues of the nose in relation to its ability to withstand external stimuli. The food habits of human populations living in different climates exhibit marked differences. Whether these various differences are due to physiological adaptations or to relative availability is unknown. The predilection of the Eskimo for diets high in protein and fats may mean that this type of diet is best adapted to withstand intense cold, or that high carbohydrate foods are not available. Mitchell(6) and associates have shown that man's ability to withstand intense cold is increased by high carbohydrate, particularly high fat foods eaten in small meals at frequent intervals. The least favorable regimen during eight hours of exposure to cold is a single high protein meal containing 20% of the daily caloric intake. The high fat meals are probably superior because of heat emission rather than heat production.

The question of the essentiality of the fatty acids in human nutrition is discussed at some length by Hansen and Burr(8). Early investigators in the field of nutrition were of the opinion that the dietary fat was merely a source of calories. Later investigators discovered the essential nature of certain fatty acids, particularly linoleic and arachidonic acids. Experiments have been carried on with rats. The exclusion of the essential fatty acids from the diets of rats leads to (1) development of scaly skin and caudal necrosis, (2) retardation of growth, (3) increased water consumption, (4) early death. Other more or less specific effects of the deficiency are histologic changes in the ovaries, uterus and other tissues.

Complete cure of the deficiency symptoms is effected by the addition of linoleic or arachidonic acid. The daily requirement in the rat is 1% of the daily dietary intake. Since there is no evidence, experimentally, in the human being it is assumed that human beings and the rats have the same metabolic process and therefore the requirement for humans should be about 1% of the dietary intake.

Observations of infants on a low fat diet have been made. It is interesting to note that, other than the eczematous eruptions that occurred, the observations were concluded when the infants became anemic and suffered from repeated infections. One infant had two attacks of grip, two of sore throat and one of pyuria. These symptoms cleared when fat was restored to the diet.

Fresh lard, corn oil and raw linseed oil are rich in linoleic and arachidonic acid and are recommended for the relief of essential fatty acid deficiency. The results obtained by the addition of fresh lard and corn oil have been much better than those obtained with raw linseed oil.

One of the greatest difficulties in ascertaining the assential nature of unsaturated fatty acids in human beings is the inability to measure accurately the amount of linoleic and arachidonic acids in the blood and tissues. The adoption of spectroscopic methods to the quantitative measurement of the fatty acids in the blood and tissues gives promise of more accurate studies of the essential fatty acid requirements of human beings.

The dietary habits of the modern American people have undergone a drastic change in the past ten years. There has been a trend to enormous consumption of sugars and highly refined flour. Milk has been advertised and publicized until the average mother feels that milk is the only requirement for the normal growth and development of the average child. Dietary deficiencies such as scurvey and pellagra, in the past, were diseases of the poor, however, at the present time the poor have a better dietary regimen than the wealthy and middle class people as their diets are selected for them.

Ample food has always been available but during the recent meat shortage the American public was deprived of the fats which are necessary for their general health and particularly the maintenance of a healthy condition of their nose. The no-breakfast habit, starvation and beauty diets, the drugstore luncheonette, with some carbonated sugar water, at 10, 2 and 4 are not ample and are predominately carbohydrate.

The dietary habits of otherwise apparently normal individuals are amazing. Most patients feel that they are eating an adequate diet, otherwise they would change. However, their daily requirement is any amount of food that will satisfy their appetite and usually consists of carbohydrate. Usually these patients are psychoneurotic and are seen because of their nasal condition.

I recently examined a young housewife who stated that she ate very little except candy bars and her daily consumption amounted to one carton of candy bars per day.

Another housewife satisfied her appetite with candied dates. Her husband was proprietor of a store and whenever candied dates were available she would make a meal of them.

Many people with nasal dietary deficiencies are under the impression that in order to ward off colds, if a little orange juice is good, a large amount is that much better, as the stenographer who drank two fountain glasses of orange juice for breakfast, two more at noon and two before the evening meal. This patient could not understand why in spite of it all she had all the symptoms of an upper respiratory infection.

Such outstanding examples of dietary deficiencies are not uncommon and I have many others equally bad. They have been overlooked by the internist due to the fact that the complaints are nasal and they did not take a complete dietary history. Roberts(2) points out that about 31% of patients use some form of cathartic, either self prescribed or advised by a druggist. These, particularly mineral oil, interfere with the absorption and assimilation of foods and vitamins so essential to a healthy nasal mucous membrane.

A complete dietary history is absolutely essential. In my office I use the dietary history chart as prepared by Roberts. This chart is given to the patients and they are instructed to answer the questions at home and return the completed blank by mail.

An analysis of the diet history of one hundred cases picked at random from the files in my office discloses many interesting features. Patients with this nasal syndrome drink a large quantity of milk, the average being from 21 to 80 glasses a week. Children are more inclined to drink large quantities of milk due to fact that during the past few years they have been made conscious of its growth and developmental qualities on the radio, through newspapers and schools. Most adults drink about one glass of milk with each meal. Both adults and children eat large amounts of carbohydrate, particularly candy bars and pastries. Vegetables are eaten sparingly by both classes. While children are inclined to eat cereals, most adults do not. The outstanding feature of the diet history, and the condition is common to both adults and children, is the fact that this class of patients do not eat fats or fat meat. It has been shown earlier in this paper that the nose with its delicate neuro-muscular and vascular systems requires fats in order to keep up its tone and withstand external stimulation. These patients do not eat fat and I am of the opinion that the condition we describe as a nasal syndrome is a local weakening of the structures with an increased permeability of the cells due to a dietary deficiency, particularly fat.

TREATMENT

The first step in the treatment of this condition is the correction of the faulty eating habits as revealed in the history. Children are not allowed to drink milk for a period of a month. This is due to the fact that many children under my observation have the habit of drinking two or three glasses of milk as soon as they reach the table. Is it any wonder that they do not care to eat anything else? White bread is also denied. Many children will make a meal of bread and milk and nothing else. Many authors feel that milk, sweets and white bread are the mucous producing foods. However, Proetz(3) denies this statement. Whether they produce mucous or not, in this case it is beside the point. I deny them these foods due to mechanical reasons.

Each case is an individual problem. The faults in the patient's diet must be corrected and the following suggestions made:

1. At least one substantial serving of meat per day. The patient is advised to eat the fat with the lean. Most patients will object to this and at the start they are advised to eat a piece of fat equivalent to a piece an inch square.
2. Potatoes and gravy are urged at least once a day. Many patients that will not eat the fat meat will eat the gravy which is nothing more than the fats from the meat.
3. Cereals are advised once a day and at this time they are permitted to use milk on the cereal.
4. Salads of raw vegetables, particularly the leafy varieties are advised twice daily.
5. Fruit juices are urged at each meal. However, the amount should not exceed four ounces.
6. Sugar and all sweet desserts are denied.
7. Coffee and tea are allowed but the patient is advised to use very little sugar or better still to use saccharin as a sweetening agent.

VITAMIN THERAPY

Vitamin therapy is essential, as these patients are definitely deficient in all the natural vitamins. After their dietary problem is corrected they are given intravenous vitamin therapy of vitamin B-Complex. This is done to build up the vitamin content of the body rapidly and also to help in the assimilation of the vitamins taken by mouth. One 2CC ampule contains

Thiamin chloride	10 mg
Riboflavin	4 mg
Nicotinamide	150 mg
Pantothenic acid	5 mg
Pyridoxine Hydro chloride	10 mg

With the intravenous vitamin therapy the patient is given one Gel-seal of multicebrin every morning ½ hour before breakfast.

Gel-seal contains

Thiamin chloride	3 mg
Riboflavin	3 mg
Pyridoxine	1.5 mg
Pantothenic acid	5 mg
Nicotinamide	25 mg
Ascorbic acid	75 mg
Vitamin A	10,000 units
Vitamin D	100 units

Many patients have been found to have a slight achlorhydria and at times small doses of dil hydrochloride acid are given at the onset of the treatment. 5-10 drops in cold water with meals seem to have a beneficial effect on the digestion and assimilation of the foods.

CONCLUSIONS

1. The nose is a delicate network of nerves, muscles, and blood vessels, and is subject to external stimulation the same as any other part of the body.

2. Fat and a fat diet have a definite effect on the body and the nose to withstand cold or external stimulation.

3. The diets of the American people have changed until although food is ample, the people have taken to various fads in regard to their eating habits.

4. Diet histories have proven the lack of fat in the diets and have shown the amazing increase of milk consumption, particularly among children.

5. High fat diet is recommended for treatment along with a well balanced general diet.

6. Vitamin therapy is used as an aid to the digestion and assimilation of foods.

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SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 4 packed level tablespoonsful of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. One to three packed level teaspoonsful of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. For further information, write to Mead Johnson & Company, Evansville 21, Indiana.

Management of Cervicovaginal Disorders*

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Many patients with disorders of the cervicovaginal area do not present themselves for examination until signs and symptoms of these disorders become annoying. In fact, lesions of this area are often found during the course of examination for unrelated complaints. A common sign is vaginal discharge. Many patients have been led to believe that vaginal douches are required in order to correct the excessive discharge. Unfortunately, they fail to realize that there is some definite cause for their discharge which will usually take more than simple douching to bring about relief.

Normally there is a certain amount of vaginal moisture or discharge. This moisture arises from the uterus and the cervix mostly, and some from the vaginal mucosa. That which is derived from the vaginal mucosa is the result of desquamation of the functional layer, is most marked in the premenstruum and gives a flocculent character to the normal vaginal discharge. The normal vaginal mucosa has a high content of glycogen. The Doderlein bacillus, a normal inhabitant of the vagina during the menstrual age, acts upon this glycogen to maintain a normally acid reaction within the vagina. This acid reaction offers natural inhibition to the growth of bacteria, and consequently the physiologic process is a natural protection against disease.

The use of frequent douches by women who have no pathologic discharge interferes with this normal physiologic protection by constantly washing away the normal vaginal flora. When highly medicated douches are used frequently without proper advice, the vaginal walls become markedly irritated, and an abnormal discharge may result.

An excessive discharge may be classified as abnormal, and usually some cause is found that can be corrected. Abnormal discharge should be investigated when it causes irritation of the external genitalia, when it is abnormally bloody, or when it is thick, mucoid and purulent. The character of the discharge often gives the clue to its origin and thereby is helpful in diagnosis and treatment. Such is the case in Trichomonas vaginalis. Here the discharge is thin, milky to yellow, often profuse, and has a frothy or bubbly appearance when seen in the vaginal vault. The discharge produces much irritation, at times excoriation, of the external genitalia and is attended by severe itching.

The disease is caused by a one-celled flagellate which is easily recognized under the microscope. This condition is quite prevalent, and a patient may be treated for vaginal discharge without the true cause being recognized unless microscopic examination has been made. The symptoms vary, in that some patients will complain of extreme distress from the discharge, while others will be symptom-free, yet show objective signs of the disease.

Diagnosis is made on the history of typical symptoms, the appearance of the discharge, the reddened, irritated vaginal mucosa, and on microscopic findings. The vaginal walls are washed with physiologic salt solution. Some of this, then, is collected in a vial and kept warm in a water bath. Immediate miscroscopic examination will reveal an active, one-celled flagellate busily pushing its way through and around clumps of leucocytic and cellular debris.

Treatment of trichomonas vaginalis varies according to response to particular medication. The medication is in the form of vaginal suppositories, and the important ingredients are commonly acetarsone or some related compound, silver picrate, or sulfathiazole. Some patients respond better to one than another of these, and occasionally treatment must be altered in order to find the one which gives the best results. To effect a cure, it is necessary to clear existing cervical pathology. The trichomonad thrives on cellular debris and inflammatory products. Therefore, elimination of this favorable situation helps control the disease. Since there is a strong tendency for the condition to recur, the patient must be careful in the use of paper at stool. The lower bowel is thought to harbor this organism, and therefore, contamination of the vagina from the rectum will be a factor in the recurrence of the disease.

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The direct treatment consists of boric acid solution douches and insertion of suppositories. A course of treatment begins with a douche in the evening and the insertion of a suppository high in the vagina at bedtime. A suppository is inserted each night for six nights. The douche is not repeated until the morning after the sixth suppository has been used. This constitutes one course of treatment. At the onset, two or more courses are used consecutively, depending on the response. When the next menstrual period occurs, the patient is instructed to use a course of treatment beginning the last 3 days of the period. This, then, provides three suppositories at the end of the period and three for the days immediately following. A douche completes the course, but the douche during the period is omitted. Treatment during the period is essential, because the disease tends to become active at this time due to the marked amount of cellular debris upon which the trichomonad flourishes. After this initial treatment, the patient may be entirely free of symptoms. It is advisable, however, for her to use a course of treatment during the next three periods in the manner just described. This will further decrease the possibility of recurrence at period time.

Monilla infestation of the vaginal tract may be confused with trichomonas vaginalis. It, too, produces extreme itching and irritation but may not show the profuse discharge. It is caused by a fungus, monilia, which may be identified in the stained slide as a rod fungus formation with budding. Clinically, it produces a reddened mucosa covered to a varying extent by thick exudate-like plaques.

Treatment of this condition consists of cleansing the vaginal and vulvar areas and painting the affected parts with aqueous gentian violet solution. Treatment must be persistent and prolonged somewhat after an obvious cure, in order to prevent recurrence.

The discharge from lesions of the cervix usually contains mucus. If there is infection present in the cervix, the discharge is purulent. The simple erosion is a very common lesion but may be the cause of excessive discharge. It is an outgrowth of columnar epithelium from the cervical canal onto the surface of the cervix. In this situation, it is subjected to the acid vaginal secretions and is, consequently, under constant irritation. This irritation stimulates cervical glands to pour out their alkaline mucus in order to counteract the acid irritation, thereby producing an excessive mucous vaginal discharge.

Erosion may lead to infection, because organisms are able to gain a better foothold in the thin columnar epithelium than in the stratified, constantly desquamating vaginal type epithelium which normally covers the cervix. When infection occurs, the erosion may enlarge and it may thicken and become papillary. Ducts of cervical glands tend to occlude, and small cysts develop in the cervical tissue. An eroded cervix may also be lacerated as a result of childbirth, and if unrepaired, the incidence of infection is greatly increased. In this instance, the lips of the cervix are everted, exposing more of the cervical canal and greatly increasing the hazard of bacterial invasion and cystic change. When infection is marked, the discharge is pronounced and is yellow or purulent. The cervix itself may be thickened or enlarged, depending on the duration of the lesion and the extent of cystic formation. While cervical pathology is not preponderantly due to specific infection, nevertheless, careful study of the history and the lesion, with appropriate diagnostic tests, should be made in order to give proper care and treatment.

The simple erosion is best treated by superficial cautery. Deep cautery may cause unnecessary scar formation and should be used only where necessary to correct deep seated pathology. After cautery, a simple erosion disappears and the cervix is covered by a normal vaginal epithelium.

The infected cervix is best treated by a preparatory course of tampon treatments, using a hygroscopic agent such as magnesium sulfate in glycerine. With these and the use of hot boric acid solution douches, the cervical condition usually improves. Cautery of the cervix is then done in order to destroy the residual lesion. The use of sulfa drugs locally sometimes prove helpful, and in certain cases where the infection appears high in the cervical canal, penicillin systemically is a definite aid. In specific infections, adequate dosage with these agents is indicated.

Cervical lacerations that are too extensive to be properly corrected by cautery should be repaired surgically before infection becomes established. If infection is present, it should be treated and cleared prior to surgical repair of the cervix.

Occasionally a cervix is markedly diseased and the seat of marked cystic change. These situations are seen most often near the termination of the childbearing period, and often the treatment which affords best protection to the patient is cervical amputation.

An abnormal bloody vaginal discharge warrants careful investigation, especially in patients at the age of greatest incidence of carcinoma. Bloody discharge may arise from erosions, markedly infected cervices, a cervical polypus, or carcinoma. Any lesion of the cervix which bleeds easily should have the benefit of a biopsy. It is only through biopsy that early cervical carcinoma can be detected. If there is doubt as to the exact pathology or if there is suspicion of malignancy in a cervical lesion, it should have a microscopic examination.

Treatment of carcinoma of the cervix consists of radium application for a suitable number of milligram-hours. The first treatment is the one which is important. The number of necessary milligram-hours is determined by the condition of the lesion, the ease of treatment, the radio-sensitivity of the lesion, and the systemic response of the patient. The relatively short effectual rays of the radium are supplemented by the use of deep x-ray therapy. Statistics show that radium treatment offers the best hope for these patients. In certain cases of very early carcinoma of the cervix, complete hysterectomy following proper radiation therapy may be the treatment of choice.

In conclusion, excessive vaginal discharge invariably has a cause. It is not enough for the patient to employ douches to correct this disturbance. There is some vaginal or cervical pathology which often requires only a simple corrective treatment in order to give the patient the relief she seeks.

* * *

FOLIC ACID IN PERNICIOUS ANEMIA

The use of folic acid, a part of the vitamin B complex group, as a complete substitute for extract of liver in the treatment of pernicious anemia is not justified, according to two Cleveland physicians.

Writing in the March 15 issue of The Journal of the American Medical Association — Robert W. Heinle and Arnold D. Welch—report an "explosive" relapse of the nervous system "in a patient on folic acid therapy who had attained and maintained completely normal blood findings. It occurred suddenly, progressed rapidly and responded to liver therapy slowly."

Pernicious anemia is considered a disease of middle and old age because it is usually found in people between 40 and 65. It is a relatively common disease in North America. The onset is slow and insidious. Languor, weakness and breathlessness are not marked at first, but later become extreme. The blood picture is much changed, the red corpuscles being greately reduced in number and very abnormal in shape. Nervous symptoms manifest themselves in numbness and tingling.

The doctors, who are from the departments of Medicine and Pharmacology, Western Reserve University School of Medicine and the Lakeside Hospital, cite the case of a man, 68, treated by them. This patient had been hospitalized because of heart disease and since that time had experienced slight numbness of the hands and inability to distinguish accurately the size of objects placed in his hands. There had been a loss of weight of 30 pounds in the last three months and it was observed that the skin had assumed a yellow color.

A diagnosis of pernicious anemia was made and treatment begun with daily doses of synthetic folic acid administered by mouth. Meanwhile, although the patient's appetite was good, his diet was restricted to liquids because all but four of his teeth had been extracted.

"Within three or four days after the removal of the remaining teeth," state the authors, "there was a sudden pronounced increase in numbness of the hands. In two weeks this had progressed to a point where his arms were completely numb from the elbows downward."

Although the dosage of the vitamin was increased, the numbness spread to the feet. When it was noted that the patient became progressively worse, being numb from the hips downward and from the elbows downward, the folic acid therapy was discontinued and treatment with liver extract was instituted. Within a month the patient showed improvement.

The authors point out that to date they have "treated and maintained 47 patients with pernicious anemia with synthetic folic acid for periods up to one year. Of this number, only two others in addition to the patient described have exhibited definite neurologic relapse. These relapses were mild and responded readily to therapy with extract of liver." In all three patients the dietary intake was poor.

The authors conclude that "the clinical use of folic acid as a complete substitute for extracts of liver in treating pernicious anemia is not justified. Although more study will be needed to determine whether massive doses of the vitamin can prevent or relieve neurologic relapses, previous experiences with other members of the vitamin B complex render this circumstance unlikely. It is fortunate that the manufacturers of synthetic folic acid have advised that a combination of folic acid and liver extract may prove more effective than either substance alone."

The Absorbable Sponge As a Hemostatic Agent*

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The recently developed absorbable hemostatic agents such as fibrin foam, oxidized cellulose and the gelatin sponge represent a helpful contribution to all fields of surgery. The need of such hemostatic agents has been appreciated by the neurosurgeon more than anyone else, as oozing which would be considered insignificant elsewhere might have a fatal outcome in neurosurgical procedures. Muscle has been used as a hemostatic agent by neurosurgeons since its introduction by Cushing in 1911, but is now being replaced by these new agents. However, the neurosurgeon is not alone in encountering problems of hemostasis. The freeing of adhesions or scar tissue, mobilization of large flaps, and of adherent tumors or inflammatory masses frequently results in large oozing surfaces which are difficult to control. Hemorrhage due to injury or incision into parenchymatous organs such as the liver may present a particularly difficult problem. Here it may be necessary to resort to gauze packing, the removal of which is often accompanied by secondary hemorrhage. The mobilization of an organ or a tumor may result in the tearing of large veins causing hemorrhage which threatens the life of the patient. When the source of bleeding is not visible, it is necessary to resort to packing or the blind application of hemostats which might cause serious damage to adjacent structures.

Although Cushing found muscle to be a good hemostatic agent, he desired something better and it was through his suggestion that Grey(14) carried out experiments with sheep fibrin in 1915 and Harvey(15, 16) developed fibrin paper the following year. The use of sheep fibrin never advanced beyond the experimental stage, but was found to be a good hemostatic agent and less irritating than muscle. Bovine fibrin paper was used clinically in neurosurgical procedures and once in a case of rupture of the liver where it proved effective, but it never became widely used.

The use of thrombin as a hemostatic agent might be considered as the greatest single underlying factor stimulating the search for an absorbable sponge, for it soon became evident that if this agent were to be utilized to its fullest extent, it would require some type of carrier which could be left in place. Thrombin alone has proven to be an effective clotting agent when sprayed or directed in a fine stream on the source of oozing(9, 23, 34), but if used in bleeding from arteries or any but the smallest veins it is ineffective as the clots become dislodged due to the pressure of the blood in the vessels. It is also necessary that the area in which it is being used be relatively dry or it forms a surface clot beneath which bleeding continues(9, 34). When used with gauze as a carrier, it is more effective, but removal of the gauze tends to dislodge the clots. Although Seegars and his associates(32, 34) found no intravascular thrombus formation, it has been suggested that thrombin should not be used about major vessels because of the possibility of clot propagation(9).

Although Cohn(5) reported on his investigation of the properties of fibrin along with methods of preparation and purification as early as 1941, it was not until 1944 that human fibrin foam was developed as a result of studies on the product of human plasma fractionation(1, 3, 18, 20). This product was the first of the absorbable sponges to be developed and was seized upon almost immediately as a carrier for thrombin in neurosurgical procedures(1, 3, 18, 19, 20).

In the dry state, fibrin foam is a white, somewhat brittle, porous material which becomes tougher and pliable when wet. When used, appropriately sized pieces are soaked in freshly prepared thrombin solution and applied to the bleeding point with pressure.

Ingraham and his associates at Peter Bent Brigham Hospital(1, 2, 3, 18, 19, 20) have carried out extensive experimental and clinical studies with this material and have found it useful in a wide variety of conditions. Although its chief use has been in neurosurgical procedures(38), it has been found effective in controlling hemorrhage from wounds of the liver, kidney, lung, abdominal wall, tongue, and gall bladder bed(2, 18). It has also been found to control bleeding in the hemophiliac(2, 18). Although Correll, Prentice, and Wise(6) find that it is still in evidence as late as the one hundredth (100th) day and there is some evidence of fibrous encapsulation, it brings about no significant tissue response and is less irritating than silk suture, catgut, bone wax or muscle(1, 20).

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Because of the post-war drop in manufacture of serum albumin, there will be little human fibrin foam produced in the future(27), but it is possible that a non-antigenic fibrin foam may be developed from animal plasma.

The second of absorbable sponges to be developed was oxidized cellulose. This material is available as both cotton and gauze. In appearance, it is similar to ordinary surgical cotton or gauze except that it is slightly off white and is more friable. When wet with blood, it soon becomes a dark red or black sticky mass which is easily packed into deep cavities. After 24 to 48 hours it becomes converted into a sticky, gelantinous mass which is easily removed without causing secondary hemorrhage. It is readily absorbed with little foreign body reaction(8, 10, 11, 12,13, 20, 25). Its presence does not delay wound healing nor interfere with the strength of union of the tissues(8). However, Lattes and Frantz(25) have found that it delays bone repair and have suggested that this action might be of value in surgical reconstruction of ankylosed joints or in surgical procedures where ankylosis might occur. It has been shown also that the greater the degree of oxidation, the more rapidly the material is absorbed; however, if too highly oxidized it becomes too friable for use(10).

It can be sterilized by immersing in 70% alcohol or by boiling for three minutes, autoclaving or boiling for a longer period of time destroys it. The commercial product is formaldehyde sterilized and packed in sterile containers.

Although oxidized cellulose has been known for some time, it has been too friable to be of practical value until a new method of oxidation by nitrogen dioxide was developed in 1942 by Unruh and Kenyon(37) and Yackel and Kenyon(39) of the Kodak research laboratories.

Frantz and her associates at the College of Physicians and Surgeons(10, 11, 12, 13, 24, 25) were the first to investigate this material in their search for a relatively non-irritating absorbable material. They first thought of it only as a packing to stop hemorrhage by purely mechanical means(12, 13), but soon used it as a carrier for thrombin(9, 10, 27, 30, 31, 35). Because of its acidity, oxidized cellulose inactivates thrombin, but this difficulty can be overcome by neutralizing it first in a 1% sodium bicarbonate solution(13, 27, 31, 35, 36). If it is too highly oxidized, it inactivates thrombin even though it is first neutralized(31). It was later shown to possess a specific hemostatic action independent of mechanical pressure(12, 13). Frantz(13) has attributed this to the formation of a coagulum of salts of cellulosic acid and hemoglobin. It has proven effective in bleeding from small arteries as well as from veins(23). Although the presence of infection is not contraindication to its use, it is a foreign body and should not be used in large amounts in the presence of infection or in deep wounds unless drained(12, 36). In one case at the University of Nebraska Hospital it produced a foreign body reaction resulting in a draining sinus which persisted for two months. This was a case in which a relatively large amount of oxidized gauze was used to control bleeding from the body wall following the drainage of an appendiceal abscess. In three other cases in which it was used to control oozing after thyroidectomy, serum collections appeared in the wounds between the fifth and seventh days. In these three cases, a single layer of gauze was used and hemostasis was prompt and complete. Although this complication has not been reported in the use of oxidized cellulose, Jenkins, Janda, and Clarke(22) have encountered similar complications with the used of the gelatin sponge.

Oxidized cellulose should be used in small amounts and applied to the bleeding surface with pressure for one or two minutes. In an oozing surface such as a gall bladder bed, one or two thicknesses of gauze usually is sufficient, for larger vessels, a thicker pack of gauze or cotton is necessary. Occasionally the bleeding recurs following the release of pressure(23, 33), in such a case Studdiford(23) has found that placing a plain gauze pack over the oxidized cellulose provides sufficient pressure to control the bleeding and the plain pack can be removed in 24 hours without secondary hemorrhage. It is of no value unless packed against the bleeding vessel.

Houser(17) has used oxidized cellulose as packing in nasal hemorrhage and feels that it is superior to ordinary gauze. The pack can be removed after about 60 hours without any fear of secondary hemorrhage. If necessary, a post nasal pack of plain gauze may be inserted first. This pack is removed in twenty-four hours. He has used this material in about 50 cases and has had no cases of infection or foul nasal discharge following its use.

Jenkins(22) has tried it as a pack following rectal operations and finds it to form a hard plug while the gelatin sponge liquifies readily and does not require removal.

In 1944 Bice, MacMasters, and Hilbert(4) developed a starch sponge which they suggested as a carrier for medication, but this material has been found to be so friable that little investigative work has been done with it(6, 21).

The gelatine sponge is the latest absorbable sponge to be developed. In its dry state it is a stiff, white, somewhat brittle, porous material, but when wet becomes pliable and easily handled. Correll and his associates who made the early studies of this substance found it to be non-antigenic, relatively nonirritating, and readily absorbed(6, 7). Because of its spongy nature it is an excellent carrier for thrombin or any other solution. This material also has hemostatic properties itself, this may be purely mechanical due to the large surface area. When used plain its hemostatic properties are inferior to those of oxidized cellulose, but when used with thrombin hemostasis is excellent(22, 23). Because of the ease of handling it is somewhat superior to fibrin foam(26, 27, 29). Light and Prentice(28) have suggested its use in the repair of veins, sealing spinal fluid leaks by adding blood or plasma to a thrombin soaked sponge, and for bridging defects in the dura with the sponge alone or a thrombin soaked sponge to which plasma is added. It has also been suggested as a carrier for penicillin, the sulfonamides and other drugs(30).

We now have three types of absorbable sponge available, fibrin foam, oxidized cellulose (cellulosic acid) and the gelatin sponge. These materials are all absorbable and produce a minimal tissue reaction, less than that produced by muscle. Of these three, oxidized cellulose is the most rapidly absorbed(25), but there is little choice among them as to which is the most desirable. When used without thrombin, oxidized cellulose is the best as a hemostatic agent, however, the addition of thrombin makes fibrin foam and gelatin sponge equally effective. In general, the choice of these materials is a matter of personal selection of that one which is most easily handled by the surgeon. However, there are two exceptions to be remembered in the use of oxidized cellulose, first is its effect of delaying bony union, a feature which may be utilized in certain orthopedic procedures, and the second is its tendency to form a hard plug when used as a rectal pack, a definitely undesirable feature.

Although these materials are relatively nonirritating and readily absorbable, they are foreign material and should be used in as small a quantity as possible, especially in wounds closed without drainage. They should be used in as thin a layer as is compatable with obtaining satisfactory hemostasis, and their use should be limited to cases in which conventional methods of hemostasis fail. If it should be necessary to pack a large cavity, ordinary gauze packed over absorbable sponge is the safest method. The gauze is easily removed without secondary hemorrhage and this reduces the amount of foreign material left in place. The fact that these materials are available and easily used does not justify any relaxation in the principles of good surgical technique, and their use in lieu of careful hemostasis by conventional methods is to be condemned. Although their chief use has been in the field of neurosurgery, they are valuable in all fields of surgery and indications for their use undoubtedly will increase in the future.

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* * *

INFANT - ADULTS

"Traits of selfishness and wilfulness can be recognized as infantile characteristics without any necessary knowledge of the individual's background," states Dr. C. S. Bluemel in "The Troubled Mind." He continues: "The infant-adult is 'temperamental'; he is intolerant of discomfort and disappointment; he can brook no adverse circumstance. As one infantile patient announced: 'Anything less than what I desire is unacceptable to me.' . . . It is seldom that the infant-adult recognizes his immaturity. He feels that he is misunderstood or is 'nervous' or 'sensitive.' He rarely perceives that he is a child instead of a man."

—From TALK.

QUALITY MEDICINE

"The thing that has made medicine what it is today is quality competition. It is not price competition.

"The thing that I fear is that under Government dominance, no matter how well intentionally paternalistic it may aim to be, quality competition will depreciate.

"I have lived in Government during the war, and I saw very little evidence of quality competition in it. I do not say this critically; I say it because I do not see how it can occur."

—FRANK H. LAHEY, M.D.

Principal Causes of Maternal Deaths in Nebraska, 1940-1945

W. E. RAPP, M.D.
Omaha, Nebraska

The purpose of this paper is to list the principal causes of maternal death in Nebraska and to discuss the factors which contribute to the mortality rate. This discussion is based on the theory and practice taught in the medical school today.

When a maternal death occurs in Nebraska, the attending physician is asked by the Department of Maternal and Child Health to fill in a questionnaire concerning the details of the obstetrical case. Nebraska doctors very graciously cooperate in providing this information, having in nearly every case taken the time to consult their records and their memories for answers to the queries in the questionnaire. This data, collected and analyzed, is the basis for this paper. The writer is indebted to Dr. R. H. Loder of the division of Maternal & Child Health, Lincoln, who has made available these questionnaires from the files of his department.

I. ECLAMPSIA

In this period, 1940-1945, there were seventy deaths due to eclampsia. Of these, 47* had seen a doctor early enough that, if better prophylactic and therapeutic management had been directed, it is reasonable to state that some deaths might have been avoided. According to the standards accepted by the nation's medical schools today the following prophylactic and therapeutic discrepancies were noted:

1. Too great an interval in prenatal visits. This is especially so in cases where early toxemias were known to exist.

2. Failure to regard warning signs revealed in prenatal visits:

a. Sudden rise in blood pressure.

b. Sudden gain in weight.

c. The symptoms of headache and eye disturbances.

3. Failure to instigate active treatment after early warning signs manifested themselves. Stricter supervision and earlier hospitalization of these toxemic patients will decrease the number who eventually become severe toxemias.

4. Caesarean section without proper indication. Rarely caesarean section is done in eclampsia and certainly not during convulsions without previous medical management.

II. POSTPARTUM HEMORRHAGE

In the same period there were fifty maternal deaths due to postpartum hemorrhage. In a review of these cases it would seem that a decrease in mortality rate could be obtained by:

1. More thorough study of the prenatal patient. Patients reach term in relatively anemic state; the policy of determining the hemoglobin on the first prenatal visit and failing to re-check it as the patient approaches term, is an example.

2. Anticipation of postpartum hemorrhage by recognition of contributing factors:

a. Long labor.

b. Twins; large fetus.

c. Toxemia; abruptio placentae; hydramnios.

d. Abnormalities of placental insertion.

e. History of familial tendencies; postpartum hemorrhage in prior pregnancy.

f. Abnormal shape of uterus,

and providing for its immediate treatment by having had a blood type determination and a cross match performed beforehand rather than "waiting to see if it is needed."

3. Following the now almost universally accepted regimen of giving 1 cc. of pitocin intramuscularly or intravenously at the end of the second stage and grains 1/320 of ergotrate intramuscularly after the placenta is delivered.

4. Utilizing promptly and to the fullest extent these measures to combat postpartum hemorrhage from the uterus:

a. Bimanual massage.

b. Compression of aorta.

c. Repetition of pituitrin.

d. Packing the uterine cavity.

5. Immediate replacement of fluid loss so as to prevent irreversible shock by intravenous water, plasma, blood.

6. Remembering that postpartum hemorrhage can occur any time in the puerperium and quite possibly in the twenty-four hours following delivery. Analysis shows that several of the fatal postpartum hemorrhages oc-

---

*The remaining 23 were seen by the physician for the first time only when in labor and with the toxemia fully developed.

curred two to four hours after delivery — when the doctor had gone home, or at least had thought that the patient was "normal" and did not need strict attention. This is also a nursing problem but it is chiefly the physician's responsibility to check the uterus at frequent intervals during the immediate postpartum period.

III. CAESAREAN SECTION

In the years 1940-1945, inclusive, there were thirty-four maternal deaths following caesarean section. These sections were performed for the following indications:

Eclampsia	9	No indication stated	4
Placenta previa	4	Overdue	1
Fibroids	5	Bandl's ring	1
Long labor	3	Atonic uterus	1
Abruptio placenta	2	Others	4

The chief causes of death in these cases were the hemorrhage-shock-embolus syndrome or the pulmonary edema-cardiac failure eclampsia picture. It is obvious that a percentage of these mothers would have died even though caesarean section had not been done. However, even though each case must be evaluated in itself, it seems pertinent at this time to list the general contraindications to the caesarean section (classical or low cervical):

1. Dead baby (four of the above sections produced macerated fetuses and six infants were stillborn).

2. Eclampsia, except in rare instances.

3. Surroundings that render aseptic operation impossible.

4. Membranes ruptured twelve hours or more.

5. After extensive vaginal manipulation.

6. Exhaustion and/or exsanguination of the mother without her first being rested and transfused.

In conclusion, these questionable procedures in the management of obstetric patients by Nebraska physicians occur frequently enough to warrant notation:

1. Use of chloroform for anesthesia in toxemic patients.

2. Use of forceps when cervix is not completely dilated.

3. Use of pitocin or pituitrin in the first stage in single doses exceeding two minims and for a total dosage of more than six minims.

4. Prenatal care that does not include careful pelvimetry. Many caesarean sections are done on the indication of contracted pelvis (and correctly so) but this indication is discovered only after the patient has had many hours of labor and other complications have developed.

In summary, it is noted that the number of maternal deaths for Nebraska has dropped from 72 in 1940 to 37 in 1945. Evidently this drop has occurred because, by the use of sulfa and penicillin there are many fewer deaths attributable to peritonitis and septicemia. The physician can gain great credit (and further reduce maternal mortality) by making better application of the knowledge and ability which he already possesses.

* * *

STEPS TO AVOID REACTION FROM FLU VACCINE

An allergic reaction following injection of influenza vaccine, which caused death of a child, is reported by a Hempstead, N. Y., physician in the April 12 issue of The Journal of the American Medical Association.

Theodore J. Curphey, M.D., from the office of the Chief Medical Examiner, Nassau County, Meadowbrook Hospital, states that a very real danger exists in the administration of influenza and other vaccines prepared from cultures grown in chick embryo without first giving the patient a skin test to determine whether he is sensitive.

The author, explaining why there have been few deaths reported from allergic reactions in the past, states that "from available evidence it would appear that the percentage of sensitivity to egg protein in the general population is not greater than 10 per cent of the total number of allergic people. The estimate of the allergic population lies in the vicinity of 10 per cent, so that normally only one per cent of the general population can be regarded as allergic to egg protein. . . . It is known, however, that allergic children are generally more sensitive than adults."

The author recommends that attempts be made to purify further the various virus vaccines now becoming generally used so as to diminish the amount of reacting egg substances. He also recommends that patients receive skin tests for sensitivity to eggs and, if the skin shows a positive reaction, that the vaccine be administered in divided doses at short intervals.

In conclusion, the author says that "if the simple precautions which have been outlined are observed there should be little or no danger in continuing the vaccination of the civilian population with these agents, which the accumulated evidence shows to have definite immunizational value."

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

The third Refresher Course for physicians will be given at the University of Nebraska College of Medicine in Omaha May 12th to 17th, 1947, inclusive.

As in the previous courses clinical demonstrations and round table discussions of current problems in diagnoses and treatment will be given. These courses are especially designed to help the practicing physician keep abreast of recent advances in medicine, surgery and various specialties.

The group will be limited to eight applicants so that individual clinical demonstrations and bedside teaching can be most effective.

The course extends over a one week period for which the fee is $15.00. Meals will be served at the University Hospital for a nominal charge and beds for a limited number will be available.

All applications must be received by May 5th, 1947, and should be sent to Doctor W. B. Moody, Chairman, Refresher Course Committee, University of Nebraska College of Medicine, 42nd and Dewey Avenue, Omaha 5, Nebraska.

U. S. NAVY RECRUITING STATION

Baird Building, 1704 Douglas Street,
Omaha 2, Nebraska
The Medical Department

The Armed Forces of the United States during the war prepared many excellent motion pictures of interest to the medical and dental professions. This office is able to supply without cost to the medical organizations in Omaha and vicinity the motion pictures listed on the enclosed sheets.

It is necessary however for notice to be given to this office approximately three weeks prior to the date the pictures are desired. This is necessary in that the pictures come to this office from Chicago, and advance information must be given so that the availability of the film can be determined.

The majority of the pictures are sound and in color and all are 16mm. When the exact showing time could be determined it is shown following the title of the picture. In cases where 16mm sound equipment cannot be secured it may be possible for this office to furnish an operator and equipment. Further information regarding these films may be secured from the Medical Department of this station.

FOUNDATION PRIZE CONTEST

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons announces a foundation prize contest. For further information write Dr. James R. Bloss, secretary, 418 Eleventh Street, Huntington 1, West Virginia.

ANNUAL MEETING, AMERICAN COLLEGE OF CHEST PHYSICIANS

The Thirteenth Annual Meeting of the American College of Chest Physicians is scheduled to be held at the Ambassador Hotel, Atlantic City, New Jersey, June 5 to 8. An interesting scientific program has been planned for this meeting. Prominent speakers from other countries will present papers.

The oral and written examinations for Fellowship will be held on the first day of the meeting, June 5. Applicants for Fellowship in the College who plan to take these examinations should communicate at once with the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

The Convocation for new Fellows and Life Members of the College will be held on Sunday, June 8. At this time certificates will be awarded to Fellows and Life Members admitted since June 1946.

ROCKY MOUNTAIN CANCER CONFERENCE

The Rocky Mountain Cancer Conference will meet in Denver, July 9, 10, 1947. Headquarters: Shirley-Savoy hotel. No registration fee. Registration opens at 2:00 p.m., July 8, 1947.

PRELIMINARY PROGRAM

Morning—July 9, 1947

9:30 Dr. A. C. Sudan, Address of Welcome.
10:00 Dr. A. W. Oughterson, "Aims of the American Cancer Society."
10:30 Discussion Period.
10:45 Dr. Hugh J. Morgan, "The Importance of History and Physical Examination in the Recognition of Cancer."
11:15 Discussion Period.
11:30 Dr. Harry C. Solomon, "Psychiatric Implications of Cancer."
12:00 Discussion Period.
12:30 Round-Table Luncheon, Shirley-Savoy Hotel.

Afternoon—July 9, 1947

2:00 Dr. Shields Warren, "The Radiosensitivity of Tumors."
2:30 Discussion Period.
2:45 Dr. Edwin C. Ernst, "The Use of the Roentgen Ray in the Treatment and Diagnosis of Cancer."
3:15 Discussion Period.
3:30 Dr. Frank Adair, "Diagnosis and Treatment of Breast Tumors."
4:00 Discussion Period.
4:15 Dr. Charles Huggins, "Carcinoma of the Prostate."
4:45 Discussion Period.
6:30 Cocktail Hour—Shirley-Savoy Hotel.
7:30 Banquet—Shirley-Savoy Hotel.

Morning—July 10, 1947

9:00 Dr. Frank Adair, "Hormone Therapy in Breast Cancer."
9:30 Discussion Period.
9:45 Dr. Eugene F. Traub, "The So-called Premalignant Eruptions of the Skin."
10:15 Discussion Period.
10:30 Dr. Joe Vincent Meigs, "Carcinoma of the Cervix and Endometrium."
11:00 Discussion Period.
11:15 Dr. Charles Huggins, "Chemotherapy of Cancer."
11:45 Discussion Period.
12:30 Round-Table Luncheon, Shirley-Savoy Hotel.

Afternoon—July 10, 1947

2:00 Dr. A. W. Oughterson, "Carcinoma of the Lip and Mouth."
2:30 Discussion Period.
2:45 Dr. Joe Vincent Meigs, "Carcinoma of the Tubes and Ovaries."
3:15 Discussion Period.
3:30 Dr. Eugene F. Traub, "Early Recognition and Management of Cutaneous Cancer."
4:00 Discussion Period.
4:15 Dr. Hugh J. Morgan, "The Last Mile—Care of the Patient with Terminal Cancer."
4:45 Discussion Period.

U. S. CIVIL SERVICE COMMISSION

The U. S. Civil Service Commission has announced an examination for filling Medical Officer positions.

These positions are located in various Federal agencies, in Washington, D. C.; in the U. S. Public Health Service and the Indian Service, throughout the United States; and in the Panama Canal Service, in the Panama Canal Zone. Salaries range from $4,149 to $5,905 a year, with higher salary rates for the Canal Zone positions. No written test will be given for these positions. To qualify, all applicants must be graduates of a medical school of recognized standing and must also meet other requirements which include experience and training in the field of medicine. The age limits are 45 years for Panama Canal Zone positions and 62 years for other positions. These age limits are waived for persons entitled to veteran preference (up to the age of 62 for the Panama Canal Service and without limitation for other agencies).

Interested persons may secure information and application forms from most first- and second-class post offices, form Civil Service regional offices, or from the U. S. Civil Service Commission, Washington 25, D. C. Applications must be filed not later than April 22, 1947.

YOUR STATE LIBRARY

Through the cooperation of the Journal, the Librarian of the University of Nebraska College of Medicine has been granted space in which to discuss matters of mutual interest to medical practitioners of the State and this library.

The library, as you may know, is located on the first floor of the University Hospital in Omaha. In size and completeness of collections, it ranks high among the libraries of medical teaching institutions of the country. It is the largest medical library of any kind between Minneapolis and St. Louis on the east and San Francisco on the west. The collection at present totals approximately 54,000 volumes, of which 20,000 are books and monographs and 34,000 are bound serials, i.e., journals, yearbooks, etc. The library receives, currently, 579 serials, representing all fields of medicine and surgery. The library also has, of course, the usual reference works and indexes to medical literature.

For the past several years, the library has made a special effort to build up its collection of material of historical interest, including surgical instruments, pictures of leaders in the medical profession, and histories of medicine and surgery. Of particular value, historically, are the medical journals published at one time or another in Nebraska. Periodical literature, especially, reflects the state of practice in its time and place and should be preserved. This thought will be elaborated in a future issue of the Journal.

As one of our services to our faculty, we issue bimonthly a mimeographed list of new books purchased by the library. Appended to each list are selected journal references on subjects of current interest. If you wish, we will be glad to add your name to our mailing list.

Although it may not be generally known, we offer library service to the members of the medical profession of Nebraska. All members are invited to avail themselves of our facilities. Just drop us a note, telling us as exactly as possible what information you desire, what aspects of the subject and what years you wish covered, and any other limitations which will aid us in our search. We will endeavor to send pertinent books and journal articles to you by book post within a day or two following receipt of your request. Address your requests to the Librarian, University of Nebraska College of Medicine, 42nd and Dewey Avenue, Omaha (5).

NEWS and VIEWS

Col. Philip H. Bartholomew, Lincoln, has been appointed assistant state director of selective service, succeeding Lieut. Col. Frank B. O'Connell, who will be on overseas assignment.

The Scottsbluff and Gering chambers of commerce have jointly requested the State Health Department to investigate the problem of undulant fever in that area.

The state legislature on April 2 refused by a vote of 11-18 to override the action of its public health committee in killing LB 408. LB 408, it will be remembered, would eliminate the present law requiring chiropractors to pass the basic science examinatoins.

The following item is quoted from the U. P. Dispatch dated March 21, 1947, which appeared in several of the clippings received last month.

"Ceilings must be returned to state medical aid, or a new source of revenue provided to meet the soaring costs resulting from abuses of the charity, the legislature agreed today.

"The judiciary committee was directed to study the matter and introduce a bill to correct the situation.

"The 1945 legislature removed ceilings from state aid to dependent children, and medical costs in that department skyrocketed to $600,089 by the end of 1946, according to a report from Assistance Director Neil C. Vandemoer. Unless something is done to curb the trend, it will be impossible to estimate the costs for the 1947-49 biennium, he said.

"Nebraska monthly payments to families for dependent children now average $76.08, Sen. Henry Kosman of Omaha, reported, compared with $33.79 in Iowa, $42.37 in Kansas, $37.19 in Missouri, and $65.53 in Colorado.

"Sen. John Callan, Odell, chairman of the budget committee reported 125 families are collecting more than $150 a month under the ADC program. Records show $404 paid out for two children, $280 for one, $276 for seven, $264 for six, $259 for three, and $254 for four.

"Doctors are not making uniform charges, it was said, and some boost their regular $3 office fee to $5 for the state wards. County officials believe they must "rubber-stamp" all applications for payments, and it was suggested that some clients do not forward the money to the doctors.

BOSTON UNIVERSITY DEAN TO SUCCEED DR. JOHNSON AS HEAD OF COUNCIL

The Board of Trustees of the American Medical Association announced today the appointment of Donald G. Anderson, M.D., dean of the Boston University School of Medicine, as Secretary of the Council on Medical Education and Hospitals of the American Medical Association.

Dr. Anderson, who will take up his new duties about July 1, succeeds Victor Johnson, M.D., who recently was appointed director of the Mayo Foundation for Medical Education, Rochester, Minn. Dr. Johnson has been secretary of the council since 1943.

Dr. Anderson is a graduate of Harvard College and received his M.D. degree from Columbia. He has had hospital and academic appointments at Boston City Hospital, Presbyterian Hospital in New York, Evans Memorial and Massachusetts Memorial Hospitals in Boston, and Columbia. During the war he was associated with Dr. Chester Keefer in penicillin research for the Office of Scientific Research and Development. His research publications deal primarily with the employment of the sulfa drugs, penicillin and streptomycin in the chemotherapy of infections.

Dr. Anderson will be the executive officer of the oldest standing committee of the American Medical Association. The Council on Medical Education and Hospitals, established in 1905, was responsible for the revolutionary improvements in medical education which occurred in the second decade of this century, and is today concerned with the maintenance of high educational standards in medical schools, hospital internships and training of physicians to become specialists, as well as in such fields related to medicine as clinical laboratory and x-ray technology, physical therapy and occupational therapy.

A.M.A. MEMBERSHIP HITS PEAK IN 1947

The American Medical Association has 131,590 members and 72,243 Fellows as of March 1, 1947. To qualify as a Fellow, a doctor must be a member in good standing of the A.M.A., graduate of a recognized medical school, pay Fellowship dues and subscribe for The Journal. Formal application must be made to the Judicial Council for approval. Only those members who qualify as Fellows are eligible for election as officers, may serve as members of the House of Delegates, may register at the annual sessions of the Association or may participate in the work of its scientific sections.

COUNCIL ON PUBLIC RELATIONS, A.M.A.

BULLETIN NO. 4

NEW BILLS INTRODUCED IN CONGRESS

S. 445 by Mr. White of Maine, January 31. A Bill to amend the Federal Food, Drug, and Cosmetic Act of June 25, 1938, as amended, by providing for the certification of batches of drugs composed wholly or partly of any kind of streptomycin, or any derivative thereof and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

COMMENT: Provides that streptomycin shall be regulated by law in the same manner as penicillin.

S. 465 by Mr. Pepper of Florida, January 31. A Bill to provide medical care and treatment and hospitalization for dependent members of the family of any veteran of any war of the United States, and for other purposes. Referred to the Committee on Labor and Public Welfare.

COMMENT: Medical care would be provided for dependents of veterans at Government supported facilities. The dependents would pay for the services at rates to be determined in the same manner as now prescribed by the President for hospitalization of dependents of Naval and Marine Corps personnel at any Naval hospital. The bill broadens the law somewhat in that services may be contracted for where a Government facility does not exist.

BULLETIN NO. 5

Senator Murray has announced that he is rewriting his National Health Bill, incorporating suggestions that were made by witnesses who appeared at the hearings last spring. He hopes to make the bill acceptable to the medical profession. The redraft may be introduced within the next two weeks.

Considerable concern is shown in both Houses over the school situation. In many states the appropriations are totally inadequate. Salaries are not attractive enough to hold an adequate number of teachers. There is a flood of bills attempting to correct this situation, and a number of them mention the inclusion in the appropriations of funds for physical and medical examinations of school children in the elementary and secondary grades. Certain groups are engaged in drafting other bills which will be introduced later. We haven't reported all of these bills because of their similarity in nature.

The Division of Hospital Facilities of the United States Public Health Service has published a series of rules and regulations, as required by the Hospital Survey and Construction Act. They are being printed and copies will be available at the State Agencies.

NEW BILLS INTRODUCED

S.J. Res. 66 by Mr. Morse of Oregon, February 14. Joint Resolution to authorize the Secretary of Labor to make certain studies of the health of school children, and for other purposes. Referred to the Committee on Labor and Public Welfare.

COMMENT: This Resolution was introduced toward the close of the last Congress. In introducing the Resolution this year, recognition was not made of the fact that the Children's Bureau is no longer in the Department of Labor. It authorizes an appropriation of $100,000 for the first fiscal year and $450,000 for each of the next two years, "(1) to make studies of the health and physical status of children of school ages; (2) to make studies of the facilities and services offered by schools for the correction of physical defects of children of school ages; and (3) to recommend the use of, and to demonstrate in representative urban and rural areas, methods of conducting school health examinations and providing school health services."

S. 591 by Mr. Vandenberg (for himself and Mr. Connally), February 14. A Bill to amend the Act of January 5, 1905, to incorporate the American National Red Cross.

H.R. 1943 by Mrs. Smith of Maine, February 13. A Bill to establish a permanent Nurse Corps of the Army and the Navy and to establish a Women's Medical Specialist Corps in the Army. Referred to the Committee on Armed Services.

COMMENT: A Committee bill—the outcome of the committee's deliberations on the Nurse Corps bill which we reported in Bulletin No. 4 (H.R. 1373). It provides for the creation in the Regular Army of an Army Nurse Corps and a Women's Medical Specialist Corps which shall consist of a Dietitian Section, a Physical Therapist Section, and an Occupational Therapist Section. It also authorizes the creation of an Army Nurse Corps Section and a Women's Medical Specialists Corps Section in the Officers Reserve Corps of the Army. It authorizes the establishment of a Nurse Corps in the United States Navy and a Nurse Corps Reserve in the Naval Reserve.

H.R. 1980 by Mr. Howell of Illinois, February 17. A Bill to provide for the general welfare by enabling the several States to make more adequate provision for the health of school children through the development of school health services for the prevention, diagnosis, and treatment of physical and mental defects and conditions. Referred to the Committee on Interstate and Foreign Commerce.

COMMENT: This bill is to be known as the "National School Health Services Act of 1947." It was drafted by Mr. George Hecht of Parents' Magazine with the aid and advice of the Children's Bureau and many public agencies and organizations. It authorizes the appropriation of $12,000,000 for the first year and $18,000,000 for the second, and thereafter such sums as may be necessary, for the purpose of "the prevention and diagnosis of physical and mental defects and conditions, and (especially in rural areas and in areas suffering from severe economic distress) the treatment of such defects and conditions, including demonstrations and the training of personnel for such State and local school health services and the training and supervision of school personnel in utilizing the findings of health examinations, but excluding health instruction other than that given as part of examination, diagnostic, or corrective procedures."

H.R. 1982 by Mrs. Smith of Maine, February 17. A Bill to revise the Medical Department of the Army, and for other purposes. Referred to the Committee on Armed Services.

COMMENT: This is also a Committee bill, resulting from hearings held on H.R. 1673, reported in Bulletin No. 4. It establishes in the Medical Department of the Regular Army the Medical Service Corps which shall consist of the Pharmacy Section, the Medical Allied Science Section, the Optometry Section, and such other sections as may be deemed necessary by the Secretary of War, and it abolishes the Pharmacy Corps and the Medical Administrative Corps.

H.R. 2033 by Mr. Morrison of Louisiana, February 18. A Bill to authorize the appropriation of funds to assist the States and Territories in financing a minimum foundation education program of public elementary and secondary schools, and in reducing the inequalities of educational opportunities through public elementary and secondary schools, for the general welfare, and for other purposes. Referred to the Committee on Education and Labor.

COMMENT: Similar to S. 472, reported in Bulletin No. 4 except that the floor of $40 is raised to $50.

H.R. 2045 by Mr. Wolverton of New Jersey, February 18. A Bill to amend the Federal Food, Drug, and Cosmetic Act of June 25, 1938, as amended, by providing for the certification of batches of drugs composed wholly or partly of any kind of streptomycin, or any derivative thereof, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

COMMENT: Identical with S. 445 reported in Bulletin No. 4.

BACKGROUND FOR SEPARATE NATIONAL HEALTH DEPARTMENT

An examination of the minutes of the House of Delegates of the American Medical Association shows that considerable thought was given over a period of years to the formulation of a separate federal health agency. References and records of action taken repeatedly in the minutes. As early as

1884 at the annual session it was urged that a separate Department of Health be established under a Cabinet officer. In 1891, a committee of twenty-three members was appointed to petition Congress on this matter. Further references appear in the minutes of the annual sessions each year from 1891 up to and including 1902. The subject apparently was not discussed during the three succeeding years, but reappears annually from 1906 to 1913, and from 1917 to 1930. After five years, a resolution was introduced into the Special Session of the House held in Chicago in 1935 urging the President of the United States to establish a separate Department of Health. At the session of the House of Delegates in San Francisco in 1938, the House adopted the following recommendation of the Reference Committee on Legislation and Public Relations: ". . . your committee recommends that this House of Delegates reiterate its demand for a federal executive department to be designated as the Department of Health, with a Doctor of Medicine at its head who shall have general supervision and direction of the affairs of the federal government pertaining to the health of the people." From the foregoing it will be seen that the American Medical Association has repeatedly gone on record as being desirous of seeing legislation passed leading to the formulation of a separate National Health Department. Current opinion in the Association at the present time is to the effect that this department should be an agency separated from other activities of the government.

Congress in 1879 passed legislation authorizing a National Board of Health. The functions and relations of this unit with other departments were very poorly defined in the law and no money was appropriated for its activities. The legislation remained on the statute books without any action until 1893 at which time it was repealed.

It has been estimated that educators are concerned in some manner with approximately twenty-eight million members of the population. Social Security has contact with about fifty-one million people including recipients as well as taxpayers. Medicine, on the other hand, has a much broader contact and in fact, enters into the lives of all of our people.

An examination of proposals to group all health activities of the federal government under one head may be accomplished in a number of ways. The most commonly considered conceptions are:

1. A separate Department of Health whose head has Cabinet status.
2. Combining all health activities of the federal government in a separate agency not of Cabinet status.
3. Combining health activities with other activities of the federal government in one department.

While the American Medical Association is still of the opinion that the health of the nation warrants a separate Department of Health with a Cabinet officer at its head, it realizes that it may be impractical to develop this at the present time.

Furthermore it is its opinion that if a separate department of health is not feasible it is possible to group health activities in a separate bureau. The Association is opposed to having health activities grouped with other activities in a department with Cabinet status.

BILLS INTRODUCED

S. 678 by Mr. Lodge of Massachusetts, February 24. A Bill to amend the Public Health Service Act, as amended, so as to provide assistance to the States in furnishing certain medical aid to needy and other individuals. Referred to the Committee on Labor and Public Welfare.

COMMENT: Senator Lodge introduced a similar bill in 1940 before he left for war. In a statement to the Senate he gives as his reason for suggesting the legislation that "there are at present a number of medicines, the manufacture of which has become thoroughly standardized and which are properly regarded by the laymen as specific remedies for well-defined diseases," and they "are so expensive that they are beyond the reach of many persons." In his statement he mentioned the following drugs: Sulfa drugs, Insulin, Liver extract, Mercury diuretics, Endocrine products, Vitamin preparations, Typhoid vaccine, Penicillin, and Streptomycin. Included in the term "medical aid" which is to be made available free to needy persons and at a minimum cost to other persons is x-ray service of which he says—"in the case of the x-ray it is not inconceivable that it would become a routine part of every physical examination were it not for the cost." The assistance is to be rendered on a matching basis.

S. 712 by Mr. Aiken of Vermont, February 26. A Bill to constitute the Federal Security Agency a Department of Health, Education, and Security. Referred to the Committee on Expenditures in the Executive Departments.

COMMENT: Would convert the Federal Security Agency into an Executive Department of Health, Education and Security to be administered by a Secretary with Cabinet rank and an Under Secretary and two Assistant Secretaries, all to be appointed by the President with the advice and consent of the Senate. No provision is made for separate administration for the three included activities.

S. 720 by Mr. Pepper of Florida, February 26. A Bill to authorize and request the President to undertake to mobilize at some convenient place or places in the United States an adequate number of the world's outstanding experts and coordinate and utilize their services in a supreme endeavor to discover new means of treating, curing, and preventing diseases of the heart and arteries. Referred to the Committee on Labor and Public Welfare.

COMMENT: The bill is very similar to the "Cancer Expert" bills reported in previous bulletins.

Senator Pepper has also announced that he is preparing for reintroduction his Maternity and Child Welfare bill.

H.R. 2077 by Mr. Lane of Massachusetts, February 19. A Bill to continue in effect until June 30, 1950, the provisions of the Act of June 15, 1943 (Public Law 74, Seventy-eighth Congress), relating to the training of nurses through grants to institutions providing such training. Referred to the Committee on Interstate and Foreign Commerce.

COMMENT: Extension of Nurse Training Program.

BULLETIN NO. 7

PHYSICIAN AND DENTIST LEGISLATORS

In the 80th Congress there are eight physicians and two dentists, one more physician and one less dentist than in the 79th Congress. Stimulated by this knowledge, we were curious to know how many physicians and dentists might be found in the legislative halls of the states, and addressed an inquiry to representative physicians in each state.

As a result of this inquiry, we learned that in thirty state legislatures there are fifty-three physicians and sixteen dentists, while eighteen states report no physicians or dentists in their legislatures. Eighteen states have but one physician, while nine have two physicians serving this year, and three have four, five and six respectively. The governor of one state is a physician. Twelve states have one or two dentist legislators.

We did not inquire as to the number of osteopaths or chiropractors, but two states reported that they each have one chiropractor in the Senate. One legislator holds a degree of D.D.S. as well as that of M.D.

BILLS INTRODUCED

S. 761 by Mr. McCarran of Nevada, March 3. A Bill to provide additional funds for the fiscal year 1947 to enable the Secretary of Agriculture to carry out the provisions of the National School Lunch Act. Referred to the Committee on Appropriations.

COMMENT: This is a deficiency appropriation bill and asks for an additional $10,000,000 to carry out the provisions of the National School Lunch Act (Public Law 396 of the 79th Congress) for the remainder of the fiscal year ending June 30, 1947.

S. 779 by Mr. Sparkman of Alabama (for himself and Mr. Hill of Alabama), March 5. A Bill to exempt admissions to certain charitable entertainments from the Federal admissions tax. Referred to the Committee on Finance.

COMMENT: Amends the Internal Revenue Code to exempt from tax any admissions to certain charitable entertainments, the gross amount of which is for the exclusive benefit of any society, institution or organization whose sole purpose is improving health or welfare of children; preventing the loss of or restoring the sight to human beings, or improving the health of sufferers of such disease; provided that no part of the net earnings inure to the benefit of a private stockholder or individual.

S. 850 by Mr. Wiley of Wisconsin, March 10. A Bill to provide for the care and custody of insane persons charged with or convicted of offenses against the United States, and for other purposes. Referred to the Committee on the Judiciary.

COMMENT: The prisoner shall be examined by a psychiatrist designated by the Court and in some instances also by one selected by himself. (Companion bill in the House, H.R. 2519).

H.R. 2519 by Mr. Michener of Michigan, March 12. A Bill to provide for the care and custody of insane persons charged with or convicted of offenses against the United States, and for other purposes. Referred to the Committee on the Judiciary.

COMMENT: Companion bill to S. 850.

BULLETIN NO. 8

H.J. Res. 161 by Mr. Judd of Minnesota, March 26, and S.J. Res. 98 by Mr. Vandenberg of Michigan, April 3. Joint Resolution providing for membership and participation by the United States in the World Health Organization and authorizing an appropriation therefor. Referred to the Committee on Foreign Affairs.

COMMENT: The President, in a message to the Congress March 21, recommended that we accept membership in the World Health Organization created in New York last July. We are entitled to three delegates to be appointed by the President.

H.R. 2526 by Mr. Morrison of Louisian, March 12. A Bill to increase the amount of deduction allowed with respect to medical and dental expenses. Referred to the Committe on Ways and Means.

COMMENT: Repeals the limitation on allowable deductions from the Internal Revenue Code making it legal to deduct all medical and dental expenses from gross income.

PROCLAMATION 2721 issued by the President on March 24, 1947, sets aside the month of April, 1947, as Cancer Control Month, and invites the Governors of the several States and Territories to issue like proclamations; also invites the medical profession, the press, the radio, the motion picture industry to unite during the month of April in a program of education in methods now available for the control of cancer, as well as a program of promotion of scientific research necessary to alleviate further the suffering caused by this scourage.

ACTION ON BILLS

S. 526 by Mr. Smith. National Science Foundation (Bulletin No. 4). Reported out by Senate Committee on Labor and Public Welfare March 26 with certain changes. The Foundation shall have 24 members instead of 48, appointed by the President with the advice and consent of the Senate. The persons nominated for membership shall be “men and women recognized as leaders in the fields of science, engineering, education or public affairs." The previous bill provided that nominations received from the National Academy of Sciences, the Association of Land Grant Colleges and Universities, and the National Association of State Universities. The term of office of each member shall be eight years. The Foundation shall elect-biannually from its own membership an executive committee composed of nine members.

Within the Foundation there shall be five divisions of activity. First of these is the Division of Medical Research. The social sciences are not included. Each division shall have a committee to consist of not less than five persons appointed by the Foundation. The chief executive officer shall be known as the director of the Foundation, and shall be appointed by the executive committee with the approval of a majority of the members of the Foundation. He shall appoint a deputy director with the approval of the executive committee.

H.RA. 1943 by Mrs. Smith. Nurse Corps in Army and Navy (Bulletin No. 5). Passed the House and on March 26 was reported out by the Senate Commitee on Armed Services without amendment.

HEARINGS ON S. 140 AND S. 712 BEFORE THE SENATE COMMITTEE ON EXPENDITURES IN EXECUTIVE DEPARTMENTS

March 24

Dr. James R. Miller, a member of the Board of Trustees of the American Medical Association testified that while the sentiments of the members of the A.M.A. have not been passed on S. 140 or toward the assembling of the functions of health, education and security into one department of cabinet rank, an examination of the minutes of the House of Delegates of the A.M.A. indicates that considerable thought has been given to the formulation of a separate federal health agency. Repeatedly the minutes, as early as 1884, recommend that an executive department of health be established with a Doctor of Medicine at its head, to supervise and direct the affairs of the federal government, pertaining to health. Statements that a physician competent to manage such a department or bureau cannot be found, cannot be accepted. There are among physicians, men with broad administrative experience and vision of health needs whose lives are devoted to cooperation with agencies and to the welfare of the people.

Since it is the concern of the American Medical Association that medical and hospital care be kept at the highest possible level, the grouping of health activities as in S. 545 will provide "an opportunity to watch the coordinated development of health functions in the federal government so that the Congress in its wisdom may determine the validity of our hopes for a department of health with cabinet status."

Dr. R. L. Sensenich, Chairman of the Board of Trustees of the A.M.A., reiterated the position often taken by the A.M.A. in recommending that all health activities now existing in the federal government be consolidated into a single department with a Doctor of Medicine at its head to supervise and direct the affairs of the federal government pertaining to the health of the people.

In the Association's devotion to improving standards of quality of medical service and to broadening the distribution of medical care to all people, constant contact with health agencies has been maintained and full cooperation with the scope of policies has been agreed upon.

Since public health is the first problem of State, the Board of Trustees opines "that health activities of the government, except those concerned with military establishment, should not be subservient to any other departmental interests." Reorganization and consolidation of health activities need not involve the expansion or extension of health activities but eliminates existing duplication.

He challenged the Federal Security Agency's argument for grouping education, health and security that "because each such agency was set up to serve a particular sphere of interest, no one of them is prepared to serve the citizen . . . as an individual human being. No one of them has a mandate to promote the basic concept of general welfare." He cited that "such an argument fails when it must be admitted by the Federal Security Agency that the implication of effective broad general contact with major portions of the population throughout the years is not well founded." The heads of the division of education must no doubt recognize that they have little control over education. Educational rehabilitation federally supported applies only to a small special group carried on through State agencies. Social security and welfare apply only to special groups and have no universal contacts.

Important to health progress is uncontrolled productive research. "Sufficient funds alone do not attract the brilliant research mind or insure effective research." Evidence of contribution to progress in medical research by welfare, education and security, as established under FSA is not manifest. "Medical achievements in the improvement of health" are highly specialized and cannot be confined to welfare and economic security "without loss of important factors in their continuing progress."

Dr. Reginald F. Atwater, Executive Secretary, American Public Health Association, supported the idea of cabinet status for the Federal Security Agency as provided for by the Aiken bill (S. 712). The APHA opposed the Taft bill (S. 140) because it would not provide flexibility of administration but would tend to separate the functions of health, education and security rather than to promote cooperation.

Dr. Vlado A. Getting, representing the Association of State and Territorial Health Officers, testified that the Association has worked for many years for the integration into a single department of all the health activities of the federal government. "The Association," he said, "favors the Aiken bill (S. 712) provided that it be amended to define the duties of the department; to protect states rights and to include all health services in a single division." Wide latitude and flexibility should be authorized to the secretary of the new department and there should be no "professional limitations" in order to insure good administration and coordination.

March 25

Caroline F. Ware, on behalf of the National Association of Consumers, supported S. 712 because it provides for an organization to be developed administratively as the secretary deems advisable; and recommended an amendment to provide for a Consumer Bureau to coordinate work in the interest of the consumer, as, development of standards for consumer goods, prices, trade protection, consumer incomes, expenditures and budgets.

Stanley H. Ruttenberg, Assistant Director of Research, CIO, recorded the support of the organization in favor of the simple transferral of the functions and powers of the Federal Security Agency to a new department as proposed by S. 712; and opposed S. 140 because of the restrictive and inflexible provisions which would invite private agencies "whose activities are judged to be anti-social and inimical to the best interests of American wage earners."

Dr. J. Ben Robinson, Dean, University of Maryland Dental School, testified in behalf of the American Dental Association, and opposed both S. 140 and S. 712 as "not in the best interests of the health and welfare of the public." He endorsed the A.M.A. plan with the addition of a division of dentistry headed by "a first assistant secretary" who should be dentist.

March 26

Dr. Elmer S. Bagnall, past president of the Massachusetts Medical Society, concurred in the views of the A.M.A. "that if federal activities in the field of public health are to be elevated to cabinet level, they should not be combined with education, security, or any other field."

Lawrence L. Gourley, legal counsel for the American Osteopathic Association protested the provision in the Taft bill (S. 140) that the under secretary for health shall be a Doctor of Medicine.

Elizabeth A. Smart, representing the Women's Christian Temperance Union, viewed with skepticism the establishment of a national health agency as provided in S. 140 and S. 545. She stated that the WCTU is opposed to legislation that might abolish the Children's Bureau and mix children's welfare activities with those of adults, and that S. 712 is the most satisfactory of all pending bills.

Dr. Robert P. Fischelis, Executive Secretary, American Pharmaceutical Association testified that if the functions of the Food and Drug Administration and Public Health Service, with whom they are chiefly concerned, were not impaired, their inclusion in a department of health, education and security would not be objectionable.

Mrs. LaFell Dickenson, President, General Federation of Women's Clubs, in a prepared statement submitted for the record, endorsed S. 712 as the best suited to bring about further consolidation, coordination and extension of the activities of federal agencies in fields of health, education and security.

March 27

Dr. William P. Howard, President, Association of American Physicians and Surgeons, opposed both S. 140 and S. 712 because the creation of such a department would not be in the public interest; would be a temptation to enhance political prestige; would not be in the best interest of the medical profession; and it would be unwise to place medical and scientific personnel under a lay secretary.

Oscar Cox, a Washington attorney, having spent considerable time working on these problems, presented his own views and pointed out three factors deserving emphasis: The continued economy resulting from coordination of health, education and security into the new department; the prestige given to studies and data coming from an executive department as compared with that of an agency of lesser rank; and the magnitude of the job in these fields calls for technicians who are also good administrators.

William P. McCracken, attorney for the National Optometric Association, opposed any measure that failed to recognize optometrists. He especially objected to the provision of S. 140 that the under secretary of health shall be a Doctor of Medicine; he preferred a lay administrator and suggested an amendment which would not preclude other professions in the health field.

At a time when the hospitals of the United States are closing wards for lack of nurses and hospital attendants, 4,057 trained nurses and 1,135 experienced hospital attendants are languishing in UNRRA displaced persons camps in Germany, Austria and Italy, it was disclosed recently by Earl G. Harrison of Philadelphia, chairman of the Citizens Committee on Displaced Persons.

The Committee is backing legislation now before Congress as H.R. 2910, as an emergency measure, which would permit 400,000 displaced persons to enter the United States at the rate of 100,000 a year. The bill is sponsored by Rep. William G. Stratton Jr., Illinois Republican.

SEAL OF ACCEPTANCE
AMA
BY COUNCIL ON MEDICAL SERVICE AMERICAN MEDICAL ASSOCIATION

Symbol: "Blue Shield"

THE "BLUE SHIELD PLAN" FOR MEDICAL CARE, NEBRASKA MEDICAL SERVICE

The Nebraska Medical Service Plan (The "Blue Shield Plan") is an attempt on the part of the medical profession to make available good and adequate medical care to the Nebraska people, under terms and conditions within the reach of all.

There have been tremendous advances in the art and science of medicine during the past thirty years. There has been an accompanying rise in the costs of rendering adequate medical care. As there has been evolution and progress in scientific and industrial attainments, there likewise has been evolution and change in the social and economic processes and thought. Medical care of a scope and degree of effectiveness, undreamed of at the turn of the century, can today be applied to the alleviation and cure of human ailments. The big problem is how to make this store of service available to the public on terms which it can afford and which will still insure continual improvement of service by rewarding individual education, knowledge, skill, application and initiative. Resort has necessarily been, to the **insurance principle.** This attempt to make medical services more generally available to the mass of the public, by the application of the insurance principal of spreading the risks is the evolution of the thinking and realization of a **socially minded profession.**

The medical profession then has been cognizant of the changing economics of the times and of the desirability of devising some method, or combination of methods, for the widespread distribution of sound medical care, adequate both in quantity and quality and under such financial arrangements as will make that care available to the mass of the public. The prepayment risk sharing was one obvious answer to the need—an answer thoroughly in keeping with our American ideals.

It must here be emphasized that the medical profession is concerned primarily with the most widespread utilization of available medical care at the lowest possible cost to the public, consonant with the maintenance of present quality and the opportunity for future scientific progress. The medical profession's main concern is to render that care. Obviously, it must be compensated at a level that will not tend to deteriorate or abase the qualifications and attainments of its members. It seems equally desirable from the standpoint of public welfare that, if the medical profession confines itself to the service features of the problem, no lay agency should be permitted to intervene and to profit from acting as broker between physician and patient.

The American people have complete confidence in the insurance principle and they will participate in sound, adequate, economical prepayment plans for health care, as evidenced by the 25,000,000 enrollees in the Blue Cross Hospital plans, and the 5,000,000 enrolled in the Medical Care plans—the "Blue Shield Plan."

The Nebraska Medical Service was organized and developed as a voluntary prepayment medical care plan, as a public service to the people of Nebraska, by the Nebraska State Medical Association.

We have learned from our first two years of operation that we are fundamentally right and that we are actuarially sound. We have enrolled more than 23,000 persons. We have achieved an efficient, solvent, and smooth-functioning organization, closely integrated with the Blue Cross. Nebraska Medical Service and the Blue Cross have much in common and naturally supplement each other.

At this time we might ask ourselves: What is a prepayment medical care plan? The answer is very simple. It is merely an organization that enrolls the subscriber, collects the assessments, and pays the benefits. Again, we might ask ourselves some other pertinent questions.

Are these prepayment medical care plans in the public interest?

Are these plans good for our patients?

Are these plans good for the medical profession?

The answer to these questions is YES.

Nebraska Medical Service is group insurance and is available to employed and self-employed groups and their dependents. Many people have asked: Why cannot this be sold to individuals? There is too great a risk in enrolling individuals in this type of service and we cannot run the risk of failure. This plan must succeed; it will succeed on a group basis, and when we have sufficient experience, financial background, and enough reserves, then we can think of enrolling individuals.

Nebraska Medical Service now offers six types of medical care benefits: Surgical, obstetrical, in-hospital medical care, pathological, x-ray and anesthesia.

The In-hospital care program is the latest addition to our Certificate and provides for the treatment in-hospital of any illness, such as respiratory disease, cardio-renal vascular disturbances and other medical afflictions. It will provide an indemnity of $3.00 per day up to 21 days annually for each enrolled individual and each dependent; it will provide up to $20.00 per annum for each individual, diagnostic x-ray while confined to a hospital; it will provide electro-cardiograph and basal metabolism tests. The Plan is the answer to the needs of the lower income group and is particularly directed to the lower income groups to underwrite the costs in part or in full for unusual, unexepected or emergency illnesses. The plan indemnifies the employed individual and all his dependents, whether they number three or ten. It is an economical method of budgeting the costs of medical care.

It is the opinion of the Directors of Nebraska Medical Service that this plan will extend more and better medical care to many persons who find difficulty in meeting the bills for unusual or emergency illnesses. It also provides benefits for x-ray diagnosis in accident cases; it provides benefits for x-ray and radium treatments for cancer; it provides for the treatment of many (50 or more) minor operative procedures outside of a hospital, in the Doctor's office, such, as minor lacerations, incision of superficial abscesses, the diagnosis and treatment of many fractures of the extremities.

Seventy-five per cent of all the medical services are rendered by doctors in the general practice of medicine and approximately 75 per cent of the dollars paid out by the Nebraska Medical Service are paid to the general practitioner.

For 50 cents a week an individual and for $1.05 a week a family can now budget its hospital and medical bills for major illnesses and many minor accidents. The only medical costs not indemnified are: office visits and house calls. This is like the $50.00 deductible automobile indemnity in which the owner assumes most of the small items of expense and the indemnity corporation will reimburse him for the large items of expense.

Good medical care must have three qualities.

It must be personal; it must be voluntary; it must have incentive.

☆ ☆ ☆ BUY ☆ ☆ ☆
U. S. Saving Bonds

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

CASH RECEIPTS AND DISBURSEMENTS

March 31, 1947

Cash on hand March 1, 1947		$51,503.86
Receipts:		
From dues	$18,551.37	
From enrollment fees	1,118.00	
Taxes deducted from salaries	43.30	
Doctors' contributions	1,000.00	20,712.67
		$72,216.53
Disbursements:		
Claims paid	$11,755.60	
Administrative expense	3,091.52	
Salary, Executive Director	150.00	
Secretary's feee	25.00	
Medical Adviser	50.00	
Attorney	50.00	
Audit expense, 1946	1,200.00	
Advertising	117.03	
Printing and stationery	234.20	
Hospital reports	8.00	
Home office travel and expense	142.50	
Collection expense	12.48	
Refunds	90.25	
Medical Economics, Inc.	2.00	16,928.58
Cash on hand, March 31, 1947		$55,287.95
Bank Balances, March 31, 1947—		
Packers National Bank, Omaha		$54,144.84
First National Bank, Omaha		1,143.11
		$55,287.95

BALANCE SHEET

March 31, 1947

Assets:			
Cash in bank		$55,287.95	
Premiums in process of collection		6,446.06	
U. S. Bonds (cost plus accrued interest)		25,151.05	86,885.06
Liabilities:			
Accounts payable, Blue Cross		$ 3,426.12	
Accounts payable, monthly invoices		767.84	
Accrued payroll taxes		56.40	
Claims payable		3,700.00	
Accrued audit expense		300.00	
Unearned premiums		25,541.64	
		$33,792.00	
Reserve for Public Relations Campaign		$1,000.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	32,643.06		
		$52,093.06	
			$86,885.06

INCOME AND EXPENSE

March 31, 1947

	Month of March	3 Months to Date
Income:		
From dues	$17,916.02	$49,444.15
From enrollment fees	1,118.00	2,160.00
	$19,034.02	$51,604.15
Expenses:		
Claims	$11,455.60	$33,191.60
Administrative expense	3,426.12	9,147.15
Salary, Executive Director	150.00	450.00
Secretary's fees	25.00	75.00
Medical Adviser	50.00	150.00
Legal	50.00	150.00
Auditing	100.00	300.00
Advertising	410.92	758.43
Stationery	4.50	4.50
Printing	414.06	1,146.42
Home office travel and expense	29.90	320.45
Dues	------	25.29
Postage	------	44.10
Taxes and licenses	1.50	4.50
Collection expense	12.48	21.74
Miscellaneous	6.00	20.50
	$16,136.08	$45,809.68
Net Gain	$ 2,897.94	$ 5,794.47

MEMBERSHIP SUMMARY—MARCH, 1947

		Subscribers	Dependents	Total
1.	Membership, March 1, 1947	10,267	14,569	24,836
	Additions	829	1,035	1,864
	Cancellations	184	182	366
	Membership, April 1, 1947	10,912	15,422	26,334
2.	Number of groups now enrolled			650
3.	Number of groups added during March			41

MARCH ENROLLMENT BY COMMUNITIES

OMAHA—15 groups, 304 members: Allied Heat Equipment; Anchor Oil Corporation; Arends, Pettinger Tool & Die Mfg. Co.; Beatrice Foods Company; R. W. Beck & Associates; John Byrne Company; Creighton Dental College; Dundee Texas Company; Max Geisler Bird Company; Loftis Jewelry; P. Lorillard Company; Nixon & Company; Omaha Towel & Supply Company; Peck & Company; Scott Mfg. Company.

NORTH PLATTE—4 groups, 38 members: Bradley Homes Company; The Hirschfeld Clothing Company; Lincoln County Court House; Oscar's Cafe.

MITCHELL—1 group, 3 members: W. C. Colter Plumbing & Heating.

FREMONT—1 group, 23 members: Yager Seed & Nursery Company.

HASTINGS—1 group, 19 members: Hastings Daily Tribune.

DAVID CITY—1 member.

VALENTINE—1 member.

GRAND ISLAND—9 members.

HERSHEY—1 member.

LINCOLN—8 groups, 274 members: Becker Roofing Company; Hedges Abstract Office; Harold Hoskins Associates; Rosewell Floral Company; Smith & Dorsey; Social Security Office; U. S. D. A. Dept. of Statistics; United Transporters Tariff Bureau.

KEARNEY—5 groups, 55 members: Good Samaritan Hospital; Kaufman & Wernert; Midway Coca-Cola Bottling Co.; Rasmussen Motor Company; Vets' Wives Club.

COLUMBUS—2 groups, 23 members: R. W. Beck & Associates; Platte County Court House.

BELLEVUE—1 group, 32 members: Mission St. Merchants.

AURORA—1 group, 9 members: Aurora Hospital.

LISCO—1 group, 5 members: V.F.W. No. 5435.

RICHLAND—1 group, 5 members: Richland P.T.A.

SCOTTSBLUFF—24 members.

BEATRICE—1 member.

OGALLALA—1 member.

CLAIM REPORT

March, 1947

Number of claims paid	242
Number of services rendered	264
Females	149
Males	93
Subscribers	94
Dependents	148

Type of Service	Number	Amt. Paid
Anesthesia	5	$ 70.00
Appendectomies	34	3,400.00
Eye	5	315.00
Gall Bladders	2	300.00
General Surgery	12	835.00
Gynecology	16	1,265.00
Herniotomies	4	400.00
Hemorrhoids	8	400.00
Minor Surgery	29	182.00
Nose and Throat	8	285.00
Obstetrics	14	750.00
Orthopedics	18	622.00
Pathology	3	25.00
Radiation Therapy	4	400.00
Tonsillectomies	48	1,670.00
Transfusions	1	30.00
Urology	1	5.00
X-rays	36	350.50
Medical	16	486.00
	264	$11,790.50

Amount of claims in process of settlement, $3,700.00

NEBRASKA STATE DEPARTMENT OF HEALTH

NEWS NOTES

Dr. D. M. Alderson has resigned as Director of Nebraska Hospital Survey to return to military service. Dr. Alderson will be stationed in New Orleans.

* * *

In 1946 there were some interesting numbers reported from the State Health Department, among them were:

—The number of persons receiving free chest x-rays—40,573.

—The number of cases of active tuberculosis revealed by these x-rays—48.

—The Emergency Maternal and Infant Care Program served 3,267 families.

—Central and Western Laboratories examined 229,606 specimens.

—Vital statistics filed 27,800 births.

—Vital statistics filed 12,300 deaths.

—The educational program in social hygiene reached 19,576.

—Educational programs in tuberculosis and immunization reached 30,000.

—Visual education programs presented in cooperation with schools and clubs reached 101,150.

—"Better Health" and the "Almanac" distributed to 30,000.

—Courses in public health presented to colleges and hospitals—10.

—Waterworks improved—42.

—Sewage systems improved—16.

Health Education Workshops will be presented as a cooperative effort of the State Department of Public Instruction, State Department of Health, other state health organizations, and the president and faculties of universities and colleges as follows:

June-July	University of Nebraska
June 16-27	State Teachers College, Wayne
July 7-11	Hastings College, Hastings
July 7-18	State Teachers College, Chadron
July 21-25	State Teachers College, Kearney
August 2-16	State Teachers College, Peru
August 2-16	State Teachers College, Kearney
August 2-18	Wesleyan University, Lincoln
June-July (weekly)	Midland College

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

Sixth Councilor District met in Aurora April 15, 1947. Following dinner, Dr. J. E. M. Thomson of Lincoln addressed the members on "Postwar Medicine in Central Europe," and Dr. O. V. Calhoun, Lincoln, spoke on "What's New in Internal Medicine."

The Ninth Councilor District met on April 4 at the State Hospital for the Tuberculosis at Kearney. Principal speakers were Drs. Wm. E. Rapp and John L. Gedgoud of the University of Nebraska College of Medicine, Omaha. Dr. C. H. Sheets of Cozad was elected president, and Dr. H. A. Abbott of Minden, secretary.

The Adams County Medical Society held its regular monthly meeting on April 3, 1947, with Drs. Wm. E. Rapp and John L. Gedgoud of the University of Nebraska College of Medicine as guest speakers.

The Saline-Fillmore Counties Medical Society sponsored a meeting at Crete Council Hall Thursday, March 27th, with Dr. J. E. M. Thomson of Lincoln, lecturing on his experiences in Czechoslovakia. The meeting was open to the public.

The Lancaster County Medical Auxiliary held a meeting at the home of Dr. and Mrs. W. W. Carveth, Lincoln, on April 7, 1947.

Drs. J. R. Schenken, H. E. Eggers and H. C. Lueth attended a meeting of the **Scottsbluff County Medical Society** on April 10. Dr. Eggers gave a short talk on Cancer followed by a motion picture film. Dr. Schenken spoke on Purpura and Other Blood Dyscrasias. Dr. Lueth spoke on The Treatment of Nephritis.

At a meeting of the **Tenth Councillor District** members of the component county medical societies assembled at Hotel Dale, Holdrege, Nebraska, on April 17, to hear a round-table discussion on cancer. The program was given by Dr. Hunt, who spoke on the Treatment of Cancer from the Standpoint of the Radiologist, Dr. McGoogan spoke from the Viewpoint of the Gynecologist, and Dr. Schenken, from the Viewpoint of the Pathologist. Dr. Lueth spoke on the Importance of Cancer as a Medical Problem and gave a resume of current research and the newer developments in the diagnosis and treatment of cancer.

DEATHS

George Pugsley, M.D., Bayard, Born in Iowa October 20, 1888; received his early education in Highland Park College, Des Moines in 1903, and graduated from Creighton University School of Medicine in 1907. After homesteading near Riverton, Wyo. in 1907 and 1908, Dr. Pugsley became assistant to Dr. C. C. Allison at Omaha, and later practiced at Ralston. He served as lieutenant in the Medical Corps of the U. S. Army during World War I and was with the 39th Medical division overseas for one year. In 1924 he located in Bayard where he immediately became active in professional and community affairs. He served on many civic committees and was very active in county and district medical societies. He served as Councillor of the State Medical Association for several years. He died March 23, 1947 following an auto collision. Surviving are his widow, his mother, who lives in Woodbine, Iowa, and a son, Dr. George W. Pugsley, Jr., now in Colorado Springs, Colo.

Paul H. Ellis, M. D., Omaha. Born 1876, graduated from Creighton University School of Medicine in 1899, a member of the Omaha-Douglas County Medical Society since 1903, was very active in medical affairs, and served as the President of Omaha-Douglas County Medical Society in 1920. In addition to his private practice, Dr. Ellis was for many years physician to the Postoffice. Death came while on a visit to Los Angeles, Calif., March 12, 1947. He is survived by his wife.

Justus Edgar Olsson, M.D., Lexington. Born 1884 at Edgar, Nebr., graduated from Omaha Medical College in 1910. He started to practice medicine in Lexington in 1911 and became associated with the late Dr. F. J. Rosenberg with whom he remained until the latter's retirement. Dr. Olsson served overseas as a medical officer in the U. S. Army from July 1918 to May 1919. He was a captain serving the 49th Nebraska Medical Unit. He returned to his practice in Lexington where he remained until his death March 22, 1947. Surviving are a son, Dr. Paul Bryant Olsson of Lexington, and one daughter.

Clyde A. Medlar, M.D., Verdon. Born in Ohiowa, Nebr., 1879, graduated from Northwestern Medical College, Chicago, 1905; he began to practice medicine in Carleton, Nebr., and after a few years moved to Scranton, Kans., then to Brock, Nebr. He moved to Verdon in 1918 and remained in practice there until shortly before his death on April 3, 1947. Surviving are his wife, a daughter, and a son, a student at Doane College, Crete.

Louis Edward Penner, M.D., Beatrice. Born in Germany, 1874, came to the United States with his parents in 1877. He graduated from Omaha Medical College in 1904. He returned to Beatrice where he remained in practice until his death on March 25, 1947. Surviving are his wife and a son, Dr. Elmer L. Penner.

William Williams, M.D., Bayard. Born in Indiana in 1864, graduate of the University Medical College of Kansas. He practiced in Bayard for 18 years prior to his death March 20, 1947. Surviving are his widow and two brothers.

Lawrence Hilton Dunham, M.D., Scottsbluff. Born in 1900, graduated from Creighton University School of Medicine in 1928, died in an airplane accident near Albin, Wyo., March 15, 1947.

Leo (Al) Dermody, M.D., Omaha. Born 1884, graduate Creighton University School of Medicine in 1908, at one time associated with Dr. C. C. Allison of Omaha; died April 5, 1947. Surviving are his wife and a son living in Taylor, Tex.

Abby Virginia Holmes, M.D., Omaha, retired. Born 1872. Graduate of Hahnemann Medical College in 1899, was one of the first woman doctors in Omaha. Died at Fontenelle Boulevard Home March 6, 1947. She is survived by one brother.

BOOK RECEIVED

FUNDAMENTALS OF CLINICAL NEUROLOGY by H. Houston Merritt, M.D., Professor of Clinical Neurology, College of Physicians and Surgeons, Columbia University; Chief of Division of Neuropsychiatry, The Montefiore Hospital, Fred A. Mettler, M.D,. Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University, and Tracy Jackson Putnam, M.D., Professor of Neurology and Neurological Surgery, College of Physicians and Surgeons, Columbia University. 289 pages including index. Illustrated. The Blakiston Company, Philadelphia and Toronto.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Ray S. Wycoff addressed the Lexington Rotary Club in April.

Dr. Antony Parsons of Valley celebrated his 70th birthday on March 21.

Dr. E. B. Finney of Lincoln celebrated fifty-nine years of practice in Lincoln on April 6.

Dr. F. L. Garner of Madison addressed the local Rotary Club on modern advances in medicine.

Dr. J. A. Lanspa of Tecumseh attended the sessions of the Chicago Medical Society in March.

Dr. George W. Prichard, Omaha, attended the Chicago Medical Society annual sessions in March.

Dr. E. J. Henrichs, formerly of Omaha has become associated with Dr. A. Blattspieler at Tobias.

Dr. Frank R. Barta, Omaha, spoke before the Association of Accident and Health Underwriters April 8.

Dr. Keith Sheldon, son-in-law of Dr. H. Winett Orr of Lincoln is stationed at the Naval Hospital, Long Beach, Calif.

Dr. Ralph Luikart of Omaha was one of the guest speakers at the annual sessions of the Iowa State Medical Society in April.

Dr. and Mrs. Harley Hotz of Omaha, victims of an auto accident during the winter, are improving at St. Catherine's Hospital.

Vacationing at Hot Springs, Ark., in March were Drs. S. O. Reese, John C. Thompson, William Carveth and J. J. Hompes, all of Lincoln.

Dr. R. D. Green, former clinical director of Veterans Administration hospital in Lincoln, has been appointed chief medical officer at the VA regional office.

Dr. Kenneth P. Wittstruck has become associated with Baylor University Hospital, Dallas, Tex. Dr. Wittstruck was formerly associated with Dr. I. L. Thompson of West Point.

Drs. Leo V. Hughes and Clinton C. Millett, Omaha, announce the association with them of Dr. N. C. Scott. Dr. Scott was recently discharged from the Army Medical Corps as a Captain.

Harold N. Neu, M.D., Omaha, attended the sessions of the American College of Physicians Post Graduate Courses on "Peripheral Vascular Disease" and the "Rheumatic Diseases" held at the Mayo Clinic on March 17 to 29, 1947.

Dr. and Mrs. J. A. Henske of Omaha have returned from a two months vacation. Dr. Henske attended the annual meeting of the Academy of Pediatrics in Pittsburgh, and from there he and Mrs. Henske travelled south to Florida, Cuba and the Bahamas Islands.

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TALL MEN WHO CROSS LEGS MAY SUFFER LEG MUSCLE PARALYSIS

If you are a tall, thin and long-legged man and have the habit of crossing your legs, watch out, because you are prone to develop partial paralysis as a result of this habit.

Writing in the March 15 issue of The Journal of the American Medical Association—Capt. Simon H. Nagler and Capt. Leo Rangell — state that peroneal palsy may result from any occupation that requires crouching, squatting or kneeling because it exposes the nerve to injury, both of the pressure and tension variety.

The eight patients seen by the physicians had the habit of crossing their legs. Five of these were air crew technicians of various kinds, whose work took them into the cramped quarters of planes, where tall long-legged persons must assume awkward positions. Thus, the nerve suffered additional injury because it is superficial near the knee where the tension was sustained.

One of these patients was a radio mechanic and operator who sat with legs crossed, the right knee uppermost and wedged beneath the table top, while sending and receiving code. Prior to his admission to the hospital, he had been sitting in this position when he noticed that the top of his right foot up to the ankle "went to sleep." When he stamped about to "awaken" his foot, he first noted that he was unable to raise it.

The authors' comment on this patient is that for years the nerve had been injured by his habit of sitting with legs crossed, but a warning tingling

(Continued on page xxxvi)

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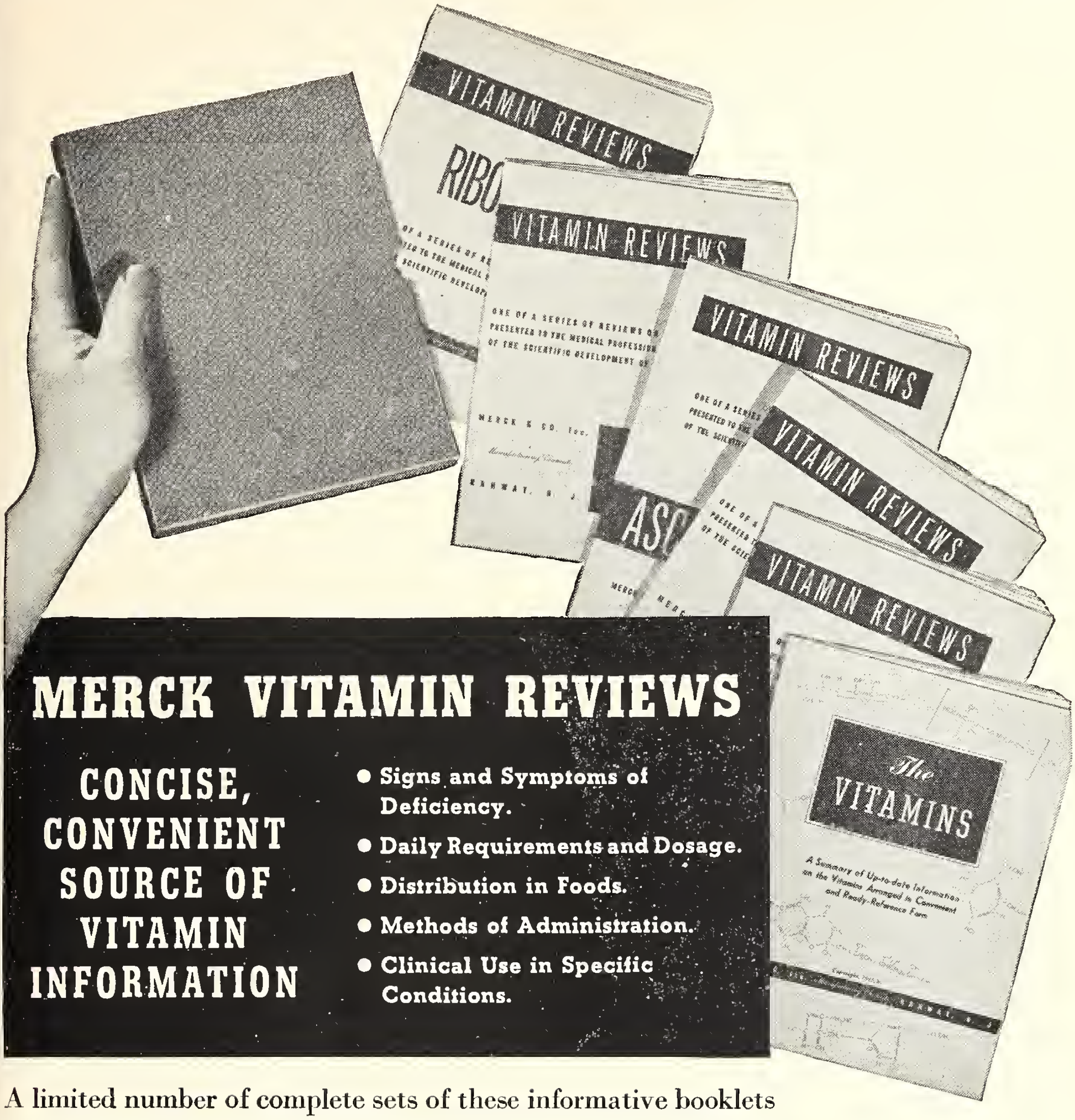
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Tall Men Who Cross Legs May Suffer Leg Muscle Paralysis

(Continued from page xxxiii)

sensation had prevented prolonged pressure. "Under the stress of military activity," they state, "this signal of alarm had been ignored, resulting in the more damaging compression. Moreover, additional traumatizing pressure was produced by wedging the crossed legs beneath a table top."

They add that "evaluation of our cases clearly demonstrates that the most important predisposing factor for development of palsy in those who habitually cross their legs is the build of body. It is the tall, long-legged person who is prone to have palsy due to crossing the legs. Our patients were tall, relatively thin and long-legged men, with an average height of 5 feet 11½ inches."

In civilian occupations, this condition has been known to occur commonly in miners, agriculturists and coal pickers, according to the army doctors.

Treatment begins with making the patients conscious of the bad effect which crossing the legs produces. Mechanical support of the foot, radiant heat, electricity, and adequate nutrition with large doses of thiamine chloride, a component of vitamin B complex, also are utilized. The therapeutic results were good in these patients.

DR. HERMAN G. WEISKOTTEN ELECTED CHAIRMAN OF A.M.A. COUNCIL

Dr. Herman G. Weiskotten, dean of Syracuse University College of Medicine, Syracuse, N. Y., has been elected chairman of the Council on Medical Education and Hospitals of the American Medical Association.

Dr. Weiskotten, who is also professor of pathology at Syracuse University, has served the council several times during the last 20 years. He directed and conducted the survey of the medical schools of the country 10 years ago, and reported the findings in the volume, "Medical Education in the United States, 1934-1937." Although Dr. Weiskotten's major interest has long been in medical education, he has taken an active part in public health work, serving as commissioner of health of Syracuse and as a member of the New York State Public Health Council. He is an author of "Medical Care of the Discharged Hospital Patient."

From its origin in 1905, the council has had only two chairmen previously — the late Arthur Dean Bevan, M.D., professor of surgery at Rush Medical College, Chicago, and Ray Lyman Wilbur, M.D., chancellor emeritus of Stanford University, Palo Alto, Calif.

Dr. Bevan led the council through the revolutionary period of early medical school inspections and the emergence of medical education in this country to a high level of quality. During Dr. Wilbur's tenure, the medical schools were further strengthened, the hospital program of the council greatly expanded and the many problems of wartime medical education were met.

Secretary Victor Johnson, M.D., Chicago, says that "the council now faces great responsibilities in the reconversion of medical education, the improvement of hospital internships and residences, the large task of meeting the educational desires of physician veterans and other equally important problems."

The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, June, 1947 No. 6

EDITORIAL

CONGRATULATIONS, AMERICAN MEDICAL ASSOCIATION!

Last month the American Medical Association reached its first century. It was on May 5, 1847 that 250 physicians consisting largely of faculty members of some of the medical colleges then in existence, and practicing physicians, mainly from the Atlantic seaboard, convened in Philadelphia to talk over some of the medical problems of the day. Dr. Fishbein, in his "History of the American Medical Association," observes that at this historic convention many of the leaders of medicine of that era were conspicuously absent. Since local medical societies were undoubtedly numerous even in those peaceful days it may be assumed that these gentlemen, not unlike so many of their professional descendants living in the stormy forties of the twentieth century, considered it "just another medical meeting."

Whether the delegates to the first and later conventions had any idea on the future of the organization may be anyone's guess. They were interested in forming a national medical society in which medical practitioners could have representation. Representation for what, one may ask? Those were literally the good old days with no Falks, Wagners, Murrays, Dingels, and their kind. Life was simple; the practice of medicine even simpler. Why spend time and energy, to organize a medical society?

The answer to these questions lies in the nature of the physician. Contrary to the assertions of our modern adversaries that the doctors of this country are reactionaries, the fact is we are never satisfied with the status quo. The primary objective for which the American Medical Association was organized was to improve the quality of medicine in this country. We quote from the first installment on the History of the American Medical Association which appeared in the Nov. 16, 1946 issue of the Journal of the A.M.A.:

"First. That it is expedient for the medical profession of the United States to institute a National Medical Association.

"Secondly. That it is desirable that a uniform and elevated standard of requirements for the degree of M.D. should be adopted by all the medical schools in the United States.

"Thirdly. That it is desirable that young men, before being received as students of medicine, should have acquired a suitable preliminary education.

"Fourthly. That it is expedient that the medical profession in the United States should be governed by the same code of medical ethics."

It is through the influence of the American Medical Association that American medicine today has attained world leadership. It is also through the activities of the AMA that the people of the United States are provided with more and better medical service than those of any other country on the face of the earth. It is through the arduous efforts of the American Medical Association that the people of this country have retained the privilege to choose their own doctor. In extending to our parent organization our heartiest congratulations on its Centennial Anniversary we express our hope that it will continue its progressive endeavors in the tradition of service in which was conceived.

THE NEBRASKA MEDICAL SERVICE LOOKS AHEAD

From the reports published in this Journal each month it is apparent that the Nebraska Medical Service is making, if not a phenomenal, certainly, a substantial growth. This is a healthy condition and it corresponds to the general economic pattern of the State. Progress is steady, consistent with the development of an institution which is to endure. Let no one assume that growth in this category is automatic. On the contrary, it takes a great deal of time and toil on the part of those concerned with the administration of the Service. Furthermore, it requires a great deal of planning and even a greater amount of patience and broadmindedness for the handful of our colleagues serving on the Board of Directors. They have given, and are continuing to give, freely what hours they can borrow from their practices and their families, to attend regular and special meetings, state, regional, and national conferences in behalf of the Service. It takes diligent study and careful deliberation to put life and activity into the organizaton.

As an illustration of conscientious effort and thoughtful planning which characterize the leaders in this movement we offer the resolution submitted by Dr. Offerman to the House of Delegates of our Association at the Annual Sessions in Omaha last month. (See page 247). The proposal by the Board of Directors of the Nebraska Medical Service to institute safeguards NOW in order to maintain solvency in the event of a probable depression is, in our opinion, more than good business sense, because the procedure is bound to add stability to the Service. In the end it will reflect credit on the ability of organized medicine to ease the burden of medical care for self-respecting families.

Every member of the Nebraska State Medical Association owes it to himself and to his colleagues to read the report carefully, because only through proper understanding of the method of operation of the Service can he lend his full support. And full support on the part of each individual member is an inescapable necessity for the success of the Service. The next year or two may be our last opportunity to convince the people of the United States that we as physicians remain sincere and capable in our attempts to maintain a good quality of medical care, free from political entanglements.

The Nebraska Medical Service must succeed. It will succeed if every practitioner in the State will consider it his personal responsibility to strive for its success.

ON ATTENDING SCIENTIFIC SESSIONS

On numerous occasions we have stressed the various advantages of attending the Annual Assembly of our Association. We have pointed out the benefits from the exchange of ideas on scientific matters and economic problems pertaining to the practice of medicine. We have likewise emphasized the advantage of renewing old friendships and cultivating new ones, because we believe that no other calling offers a greater mutuality of interest than that enjoyed by the members of the medical profession. As an expression of this belief we endorse a wholesome measure of social activities and relaxation for those attending the convention.

That these activities are at times overemphasized on group levels is unfortunate. As an illustration we refer to the embarrassingly low attendance at several of the programs of the Assembly held in Omaha last month. This was especially true of the evening meetings. We commend any physician who during the time of the Assembly desires to entertain one or several of his local or visiting friends in whatever manner he deems fit. However, when these private social activities interfere with one of the primary functions of the Assembly they are obviously inimical to the welfare of the Association. Speakers, whether our own members or guests, who put in time and effort preparing papers find little encouragement in addressing a handful of doctors. In our estimation, large parties given during the hours of the Session, regardless of good intentions of the hosts, are a painfully poor excuse for distracting from the attendance of the scientific meeting.

It may be well for the Nebraska State Medical Association to establish a rule followed by the Omaha Mid-West Clinical Society which limits extramural entertainment to evening hours following adjournment. The system appears satisfactory at the Mid-West, and so far as we are aware there has been no criticism. Speakers are invariably on time and the sessions are well attended.

In connection with the attendance we have one other observation: The meetings of the House of Delegates and the Council too fre-

(Continued on page 216)

GEORGE E. CHARLTON, M.D.

President Nebraska State Medical Association

Dr. Charlton was born at Geneva, Fillmore County, Nebraska on September 18, 1881. He attended High School at Bruning and Lincoln, Nebraska, following which he attended Cotner University and the Lincoln Academy. In 1903 he matriculated in the Lincoln Medical College, Lincoln, Nebraska, graduating in 1907. He was licensed to practice following his examinations in the same year.

From 1907 to 1913 Dr. Charlton was in general practice. He entered the Hastings State Hospital, Ingleside, Nebraska, as a Staff Physician in 1913 and served the institution in that capacity until he was appointed Superintendent of the Norfolk State Hospital, in 1916. He served as Superintendent of the Norfolk State Hospital from 1916 until 1930 when he was transferred by the Board of Control back to the Hastings State Hospital at Ingleside, Nebraska, to serve as Superintendent. After three years he returned to Norfolk, where he has served as Superintendent of the Norfolk State Hospital continuously since that time.

Dr. Charlton is a Fellow of the American Medical Association and the American Psychiatric Association. He has served as President of the Norfolk Rotary Club; for a number of years he has been a member of the Board of Directors of the Y.M.C.A. of Norfolk, and is a Vestryman of the Trinity Episcopal Church. He has also taken an active part in the Chamber of Commerce of Norfolk.

ON ATTENDING SCIENTIFIC SESSIONS

(Continued from page 214)

quently conflict with the scientific sessions. Many of the Delegates, and some Councilors, expressed preference to convene the day prior to the opening of the sessions in order that they may be free to attend the scientific meetings. We believe the suggestion merits consideration.

J. E. M. THOMSON, NEW PRESIDENT-ELECT

The Journal wishes to extend its congratulations to Dr. J. E. M. Thomson of Lincoln upon his election to the office of President-elect of the Nebraska State Medical Association. Dr. Thomson has been prominent in medical organization for many years; he has served in numerous offices in several national organizations.

NUMBER OF BIRTHS REMAIN HIGH DURING FIRST QUARTER OF 1947

In the first quarter of 1947 approximately 973,000 births were registered in the United States, according to preliminary estimates released today by the National Office of Vital Statistics, U. S. Public Health Service, Federal Security Agency. This is 46.5% more than the 664,000 births estimated to have been registered in the first three months of 1946, and it is 29% more than the number recorded in the first quarter of 1943, the year which held the record for births until outstripped by 1946.

Deaths in this country are estimated to have totaled 388,000 in the first three months of 1947. This is the same estimated number as that for the first quarter of 1946. In 1946 there was a mild epidemic of influenza and other respiratory infections that increased the number of deaths in January over the number recorded in non-epidemic years. In 1947 the incidence of influenza increased in March and the provisional death rate reported for March was higher than for that month in any year since 1943. The death rate for this past March was 11.3 per thousand population, as compared with 11.7 for March 1943. For the first quarter of 1947 the death rate on a cumulative basis was 11.0 or 1% less than the comparable rate of 11.1 deaths per 1,000 population (excluding the armed forces overseas) for the first quarter of 1946.

EXPECT ANOTHER BIG POLIO EPIDEMIC

Another big polio year is expected this summer by infantile paralysis experts. Without making any specific predictions, they told members of the American College of Physicians that there will probably be a lot of polio in the United States and elsewhere for a number of years to come.

One authority, Dr. Thomas Rivers of the Rockefeller Institute, said that he feels we are in a pandemic, such as the influenza outbreak of 1917-1918.

During the last four years there has been the largest total number of cases of polio in the United States in the history of the nation, Dr. Edward A. Piszczek of Chicago reported.

The increase is not just a matter of more accurate reporting. Doctors actually are seeing more cases, Dr. Piszczek said. The virus that causes infantile paralysis has grown more virulent. Until it begins to lose some of its virulence, we shall go on having polio cases every year, the authorities believe. Since the beginning of this year 33 states have reported more polio than for the same time last year. Authorities are watching with special concern increases in some states which for the past four or five years have had very little polio.

—Science News Letter

POSTAGE STAMP COMMEMORATES A.M.A. CENTENNIAL, JUNE 9

Postmaster General Robert E. Hannegan has approved the issuance of a commemorative postage stamp honoring the doctors of America.

The special stamp will be of the three-cent variety and will be placed on sale on June 9 on the occasion of the 100th anniversary of the founding of the American Medical Association.

"In so honoring the American doctor," Mr. Hannegan said, "we are paying tribute to the men and women of medicine who devote their lives to the cause of humanity. Alleviation of pain and suffering and the betterment of mankind is their creed. The contribution which they have made to our national life is one of which all Americans can be proud and grateful."

President's Address

EARLE JOHNSON, M.D.
Grand Island

Disraeli once said: "The health of the people is really the foundation upon which all their happiness and all their powers as a State depend."

Politicians anxious to perpetuate themselves in power, a motley crew of social uplifters, and communists who have filtered into the ranks of labor, recognizing the self evident truth of Disraeli's observation, and ready with promises of something for nothing, succeeded in introducing in the 79th Congress the Wagner, Murray, Dingell bill. That this bill died with the 79th Congress and that the election of last November changed the entire complexion of Congress does not mean by any amount of wishful thinking that these individuals have given up their efforts to socialize medicine. They are now, and they will continue to force the foreign ideology upon our citizens. In fact they are more firmly than ever entrenched in various departments of our government. They are very vocal, openly demanding in a completely united front, State Medicine. If any of our members are doubtful of the intent of this group of foreign ideologists let them read the hearings on the Murray-Wagner-Dingell Bill.

While some of our citizens have seen through this attempt to change our democracy for a communistic state by beginning with this change in medical economics, no great unified effort has been made by our profession to combat this movement until the past 3 years. Even today a trip over our state will find many good members of our County Societies who are not aware of the threat to the health of our people, and who do not whole heartedly support such defensive measures as have been approved by the A.M.A. Many of our members have not as yet contributed financially to the attack upon these forces, which even as I speak before you, are attempting with some measure of success, to communize our democracy and our time tested voluntary method of protection of the health of our fellow citizens. That the practice of medicine as we know it today needs no defense, is amply proven by the comparison of our public health statistics with those of Central Europe, Russia and England where socialized medicine has been established; by a study of the army medical corps which is made up of physicians who had left civil practice and made a record in the care of war sick and wounded. Their record has not been equalled in all history. The medical profession of the United States has reached a position of leadership which is second to none on this earth. Our medical colleges today are the only ones which afford a complete education with opportunities for clinical study and research. As individuals we must become vocal, recite the great accomplishments of unhampered American Medicine, protect the health of our fellowmen by actively seeing to it that those representing our community in national or state legislatures are the type of Americans, firmly convinced of their right to choose their own doctor, NOT A doctor assigned to them by bureaucratic edict.

State medicine is the first step to change our democracy to one of the isms conceived and nursed through its adolescence by foreign ideologists. "What should be our course of action?" asks J. Edgar Hoover. He answers as follows: "The best antidote to these foreign ideologies is vigorous, intelligent, old fashioned Americanism, with eternal vigilance. I would have no fears if more Americans possessed the zeal, the fervor, the persistence, and the industry to learn about this menace."

Do we here today have a positive constructive answer to political medicine, a thoroughly American answer to compulsory health insurance? Emphatically we do both on national and state levels. On the national level Senators Taft, Ball, Smith and Donnell have introduced S 545. But for the brilliantly logical defense of American Medicine by Senator Donnell of Missouri in the 79th Congress, the Wagner-Murray-Dingell Bill might have become a law. When you read carefully you will realize that the principles set forth in S 545 more nearly approximate the principles of the ten-point national health program of the American Medical Association than any other health measures thus far proposed. Consider it your duty to read a detailed analysis of S 545 page 868, Journal of the A.M.A. of March 22, 1947. Many favorable improvements are found in this bill.

On the state level we offer the Blue Cross and the Nebraska Medical Service Plan. The physician has a professional interest in the success of the voluntary prepayment Medical Care plans because they demonstrate our determination to provide a sound method of budgeting the costs of good medical care. As a citizen, he has an interest in their success because they offer the best way of solving, on a democratic basis, the difficult social and economic problems created by the unpredictability in the family's need for the services of physicians. Successful voluntary prepayment medical care plans must follow the sound basic requirement of insurance —requirements which have been discovered and tested by generations of experience in other fields and which have endured to guide the medical profession in developing and extending the benefits of medical service. Very few physicians in the 48 states, and no one in our state have done more or better work in this field than Dr. Arthur J. Offerman of Omaha. For our Association let this be a tribute to his monumental work and for his encouragement to continue in this defense of American medicine.

The work of the Planning Committee under Chairman Floyd Rogers has been difficult indeed. Contracts, fee schedules, modus operandi, and dozens of other details have been completed with the Veterans' Administration. One such contract for home and hospital care of the veterans' service-connected disabilities has been signed by your officers only to have a change of part or all the details ordered by the V.A. The committee feels that if General Bradley and General Hawley do not have too much interference, a contract will eventually be signed satisfactory to the veteran, the V.A. and to the medical profession.

The American Cancer Society, its Nebraska Chapter, and the "Nebraska Association for Cancer Study and Research" headed by Dr. James Kelley and Dr. Eggers have begun a monumental work in this state. A short trip over our state demonstrates that the public looks to our profession for results in fighting this disease and that the people are eager to help with moral and financial support. Eighty per cent of funds raised during this month by Voluntary subscription in this state will remain here. These funds will be used in Nebraska, administered by members of our association. Here is another activity controlled by our Association which presents the strongest challenge to united support and to actual study and research by our medical colleges and especially by our younger members.

The evidence that our profession is sincerely interested in the problems and welfare of our citizens is further strengthened by the work of the West Central Diabetic Association headed by Dr. Frank Conlin of Omaha and Floyd Rogers of Lincoln. Their plan is to have midway between Omaha and Lincoln a summer camp for education and training of all diabetic boys and girls of our state in the way they must eat, play, and live and thrive. So great is the merit of this work that it has been made this year's project of the Nebraska Junior Chamber of Commerce. This work has also received the endorsement of several County Medical Societies and Councillor Districts. Only in our country, with our free American system of Medicine could such a project be initiated.

Our Executive Secretary is today recognized as one of the three most efficient in America. It will be a sad day for our Association when we lose his services. The coordination of the activities of our Association costs money; the benefits accruing to each member may be unrecognized by some but are none the less real. The finances of our Association are in excellent condition and are better administered than at any time in the past 10 years. For every $15.00 of annual dues your Board of Trustees has paid out $20.00. There are but few State Medical Associations that can approximate this record. Through the aid of this office L. B. 139, the Medical Practice Act of Nebraska was signed into law by Governor Griswold in 1943. This law has been recognized by the Federation of Medical Examining Boards of United States as the best Medical Practice Act in America.

Since our last convention we have a new state administration. His Excellency, Gov. Val Petersen has repeatedly called your officers in consultation regarding health needs in Nebraska. He is cognizant of the value of our Association's sincere work to improve the health of our citizens. The reorganized Health department of the State of Nebraska, with Dr. Petty as its director, now better than at any time in the history of our state, is in a position to exercise its functions as a public health agency. In complete cooperation with the Nebraska Cancer Society Dr. Petty has set up a Cancer register. For the first time in this state a complete and detailed statistical record will be available.

The serious problems faced during the past year have been a blessing in disguise. The defense of our system of American Medicine has welded our Association into a united front. This united front must extend from 535 No. Dearborn St. to our smallest country society if we are to hand down to our sons the heritage of American medicine.

It seems no better conclusion to this report can be made than to quote from the address of the President of the North Central Medical Conference, our own Dr. J. D. McCarthy:

"The American Medical Association is the instrument, in my opinion, whereby the physicians of the United States can gain their end. It is a big "machine," and like all other machines has working parts which mesh if "follow directions" is adhered to. It is big enough to function with supernumerary machines, and its directing force comes from the ranks of the profession. The machine needs oil at times, not T.N.T.; the workmen need counsel, not abuse.

"Placing our problems on the public altar with the hope that they will be understood and condoned, calls for unity of purpose on our part. Suggestions, resolutions, et al, should go through channels in an orderly manner. Controversial problems should be threshed out privately among ourselves — not on the front page of metropolitan newspapers. Heaping abuse on a confrere because of differences of opinion or method of procedure leads to a wide-open organization breach. Descent to gutter politics to gain a point is reprehensible and but widens the breach. Initiating new societies for the purpose of advancing individual theories of ways and means to obtain an end does medicine as a whole a disservice. Opinions expressed to the councils of the parent body, even though reflecting minority opinion, would be effective and give to the overall endeavor a solid line front. Obstructionism, revolutionary tactics, and sallies from prima Donnas will but wreck the machine."

And finally permit a few personal remarks. I extend you my sincere thanks for the fine cooperation you have so freely given me and for the high honor of occupying this office.

Unfettered American medicine is still growing. The changes in the past 34 years give one the ability to see some things more clearly. Such stalwarts as Dr. Wegener and Dr. E. A. Steenburg, from their 50 and more years of practice, serve as an inspiration which one would like to emulate.

Allow me to leave this thought with you: Every day in every patient bend your efforts and talents toward one thing only, the good of the patient; put back into your community and this Association a liberal portion of your education and your experience. The rewards, far beyond your greatest hopes will be personal honor, personal satisfaction, and financial success.

Thank you, my colleagues, and with James Wadsworth Longfellow:

Let us do our work well,
  Both the unseen and the seen;
Make the house where gods may dwell,
  Beautiful, entire and clean.

* * *

THREE DISEASES CAUSE 80-90% OF ALL CASES OF HYPOGLYCEMIA

Eighty to 90 per cent of all cases of hypoglycemia, result from three diseases which Jerome W. Conn, M.D., of Ann Arbor, Mich., defines so that treatment may be more successful.

Writing in the May 10 issue of The Journal of the American Medical Association, Dr. Conn differentiates the three types as follows:

Functional hyperinsulinism is caused by oversecretion of insulin in the pancreas. Insulin transforms carbohydrates for body use but its overproduction deprives the blood of necessary sugar. Symtoms are weakness, irritability, fatigue, sweating and dizziness. This type is not progressive in severity. It occurs more frequently under emotional or physical tension which acts as a stimulus. Hypoglycemic attacks occur two to four hours after meals. Dr. Conn found that a high protein, low carbohydrate diet is successful in the management of this type of hypoglycemia.

Organic hyperinsulinism is caused by the growth of a tumor or tumors in the pancreas which stimulate the production of insulin. This type is progressive in frequency and severity of attacks which occur before breakfast from two to eight a.m. and two to four hours after meals. The attacks are precipitated by skipped or late meals or exercise. Removal of these tumors results in complete alleviation of the entire disturbance without recurrence in the vast majority of cases.

The third type, hepatogenic hypoglycemia, is traceable to changes in the liver. This organ is responsible for the storage of glycogen, which is converted into sugar as the needs of the system require. However, if this storage does not take place because of some condition such as a diseased gallbladder, then the body is deprived of its needs. This type of hypoglycemia is also progressive in frequency and severity with attacks occurring before breakfast. These patients should be put on a diet both high in carbohydrate and high in protein.

Urticaria and Allied Dermatoses*

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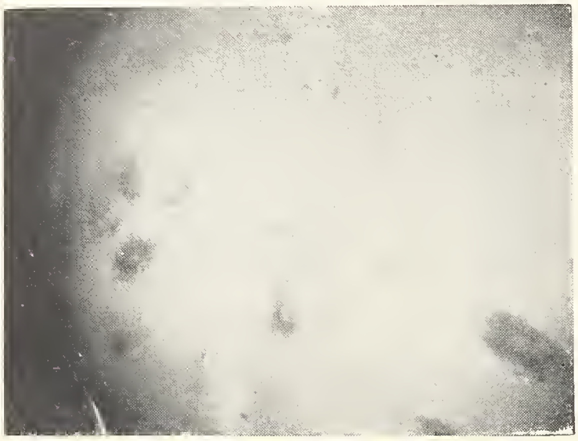
From the Dept. of Dermatology and Syphilology,
Medical School, University of Michigan

Recent synthesis of effective antihistamine substances, vastly superior in most respects to those previously available, has been a boon to investigation and treatment of the urticarial group of diseases.

Urticaria, angineurotic edema, erythema multiforme and erythema nodosum comprised for many years an apparently heterogenous and seemingly unrelated aggregation of dermatoses. The cornerstone for a fundamental knowledge of these diseases was doubtless laid by Lewis(1), who delved deeply into the mechanism productive of the urticarial wheal. Upon completion of a series of unique and ingenious experiments this investigator postulated the release, by damaged cells, of a substance closely allied to, if not identical with histamine as a basic factor. This material he believed, exerted its effect both on capillary walls and on cutaneous sensory terminations in a definite and orderly sequence of events to produce the wheal. Subsequent studies, though not invariably substantiating this theory in minute detail, have served to crystallize the concept of an underlying intimate relationship between these four diseases.

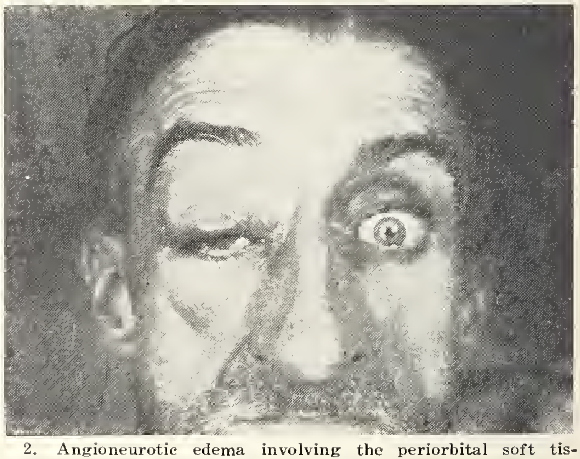


1. Urticarial wheals showing the central edematous papule surrounded by erythematous halo.

URTICARIA

Urticaria implies an eruption, usually extensive but occasionally limited in distribution, which is featured by the occurence of ephemeral, pink to white, firm, oval or round papules, the individual lesions encompassed by an erythematous halo. The purely descriptive term, "giant urticaria," has reference to the palm size and larger plaques which are manifest at times. Usual subjective complaints are those of pruritus or burning, and occasionally these are of such magnitude as to render the patient quite frantic. Mucosal involvement is not a rarity. The brusque onset of laryngeal obstruction may at times complicate a seemingly benign episode of hives. Gastric wheals have been visualized and abdominal pain is a not infrequent and disquieting accompaniment.

Agents which may at various times and under diverse circumstances function as the trigger mechanism in the production of urticaria are legion. The bite of a mosquito or contact with a nettle may precede local development of a wheal, and it has been noted that the term urticaria is abstracted from the botanical designation of nettle (urtica). More recently recognized but nevertheless significant factors, on occasion, are physical agents, most often exerting their effect as the result of injudicious exposure of a susceptible individual to such media as heat, cold or light. Psychogenic disturbances are sometimes accompanied by an urticarial efflorescence, and the eruption has been observed on occasion to feature such multifarious disease processes as pharyngitis, tonsillitis, obstructive jaundice, malaria and syphilis. Without doubt the greatest volume of urticarias appears to be dependent on the ab-



2. Angioneurotic edema involving the periorbital soft tissues, with resultant rather marked ptosis.

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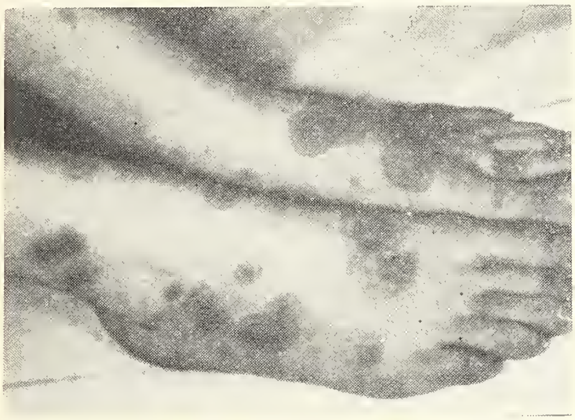
*Read before the Annual Assembly of the Nebraska State Medical Assn., May 6-9, 1946.

sorption of toxic products in sensitized individuals, these substances being either of exogenous origin or synthesized within the body. Medications, including penicillin and the sulfonamides, are often ascribed as the guilty agent, and the amazingly minute quantity provocative at times of an outbreak of hives is first class evidence as to the role played by sensitization.

Microscopic examination of the urticarial wheal does not reveal spectacular findings. Delimited and moderately severe edema of the corium is seen, with associated dilation of lymph channels and smaller blood vessels. Perivascular infiltrate is minimal.



3. Erythema multiforme of the iris variety. This is a commonly involved site.

ANGIONEUROTIC EDEMA

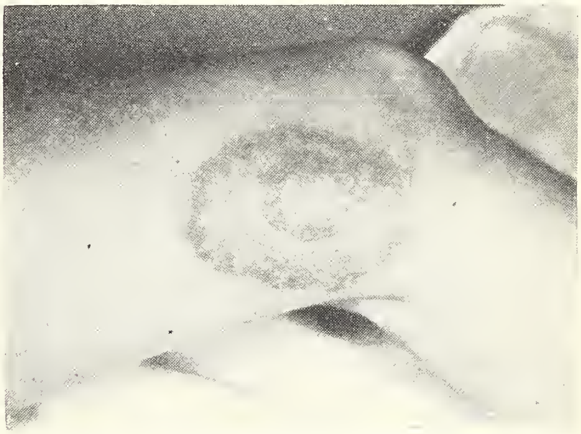
Fundamentally a variant of urticaria, angioneurotic edema differs from the first named disease in two noteworthy respects—distensible structures, such as the lips, eyelids and genitalia are involved by predilection, and the edema occurs in deeper portions of the integument. Less significant distinctions are the relative tenacity of the lesions of angioneurotic edema as compared with the evanescent urticarial wheal, tenderness of the former, rather than the subjective complaint of pruritus, and an occasional angioneurotic swelling which is diffuse and of striking porportion, notably when an extremity is involved. As with urticaria, implication of mucosal structures may herald the onset of distressing obstructive manifestations. Recurrences, often at previously involved sites, may be anticipated, and in common with urticaria, the list of agents which may provoke an outbreak is lengthy.

The pathologic findings associated with angioneurotic edema are closely akin to those occurring in the urticarial wheal and consist of a severe deep seated and at times extensive edema of the corium and hypoderm. A leukocytic perivascular infiltrate is not uncommon.

ERYTHEMA MULTIFORME

Capricious is an admirably descriptive term for the cutaneous manifestations of erythema multiforme. Despite frequent polymorphism, variants of the disease are named as to the predominant type of lesion, employing such hybrid designations as erythema papulatum, annulare, perstans and iris, the latter having reference to a peculiar bull's eye configuration. A rather spectacular and oftentimes rigorous eruption is that of erythema multiforme bullosum. Distinction of this variety from pemphigus, a bullous disease with poor prognosis, may at times tax the diagnostic acumen of a discerning clinician. The variegated hues assumed by the lesions of erythema multiforme are dependent upon the transudation of pigmentary matter from the blood stream.

Although the causative factor cannot invariably be elicited, the eruption of erythema multiforme not infrequently complicates a nidus of infection. Ingestion or injection of a great variety of products may be the provocative factor. The idiopathic variety is prone to recur during spring and fall. Symmetry and morphology of the eruption, vacillating pigmentary features, a predilection for exposed surfaces, paucity of subjective manifestations and relative persistence of the individual lesions depict important points of differentiation from urticaria.

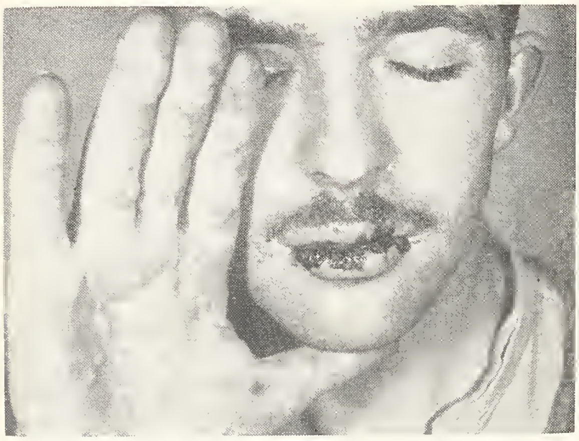


4. Erythema multiforme perstans. Concentric rings are apparent.

Histologic features of erythema multiforme are not distinctive. Epidermal edema may be of moderate degree or so severe as to result in the development of vesicles and bullae. Significant alterations in the papillary layer of the corium consist of edema, swelling of the collagenous tissues, vascular dilatation and a transudation of leukocytes, with red blood cells included in the process at times.

ERYTHEMA NODOSUM

As the terms implies, nodosites often of bright hue, are the outstanding manifestation of erythema nodosum. These deeply imbedded tumefactions have a predilection for the shins, are usually bilateral, may number as many as twenty, vary in color from a bright red to a purplish hue, and are smooth, shiny and exceedingly painful. Benign constitutional complaints not infrequently usher in the eruption, and of these, arthralgia, malaise and fever are commonplace. Young individuals, specifically young women, are favored subjects, and incidence of the disease reaches a crest during spring and fall. Though softening and apparent fluctuation may be noted, especially when the lesions are regressing, suppuration is an exceedingly rare eventuality. Contusions, syphilitic gummata and the peculiar nodular eruptions which occasionally complicate the ingestion of iodides and bromides most often require differentiation.



5. Bullous erythema multiforme. Extensive oral and labial involvement are the cause of considerable discomfort.

The combined list of occasional inciting factors and diseases which erythema nodosum may accompany or succeed is of moderate length. Antecedent streptococcal infections, particularly of the tonsils and pharynx, rank high on this compilation. The possibility of a coexistent tuberculosis infection should be entertained, especially in children. Coccidioidomycosis, tularemia, endocarditis and the common infectious diseases not infrequently manifest such nodosites as an accompaniment. Intolerance to medications, and more especially the sulfonamides, may reveal its presence in such a manner.

Edema, vascular dilatation, extravasation of leukocytes, and on occasion, erthrocytes, these alterations occurring in the middle and lower portions of the corium, feature the microscopic evidence of erythema nodosum. Proliferative changes in blood vessel walls of the lower cutis are apparent on occasion.

The advent of Benadryl(2) (B-dimethylaminoethyl benzhydryl ether hydrochloride) heralded a new era in the treatment of urticaria and allied dermatoses. Enthusiastic prognostications as to its efficacy have been fulfilled in varying degree. Mitigation of acute urticaria subsequent to administration of this drug is gratifying almost without exception. Manifestations of angioneurotic edema, erythema multiforme and erythema nodosum are minimized or banished in an appreciable percentage of cases. The response of chronic urticaria is probably least dramatic, and reappearance of the eruption following cessation of medication is usual. Annoying recrudescences of the previously described diseases may be aborted on occasion by prompt administration of the product just preceding or coincidental with the advent of preliminary signs and symptoms. Toxic effects, seldom requiring discontinuance of therapy, include lethargy, dizziness, dryness of the mouth, nervousness, nausea and frequency.

Pyribenzamine, (N'-pyridyl-N'-benzyl-N-dimethylene diamine hydrochloride) newest addition to the family of anti-histaminics, gives evidence of being eminently satisfactory in treatment of the urticarial group of diseases. Approximately 30% of patients ingesting this product are reputed to demonstrate mildly undesirable side effects which may include any or all of those ascribed to the action of benadryl.

SUMMARY

The intimate fundamental relationship of urticaria and allied dermatoses has become manifest with the availability of effective antihistaminics. Though a compilation of etiologic factors concerned with any of these diseases is at times a lengthy one, sensitization appears most often in the leading role and any of a thoroughly diversified conglomeration of substances may function as the trigger mechanism. Benadryl and pyribenzamine are of definite remedial value in the management of diseases comprising this group.

(References in Reprints)

SYMPOSIUM ON RHEUMATIC FEVER

The Care of the Child with Rheumatic Heart Disease*

J. A. HENSKE, M.D.
Omaha, Nebraska

I wonder if the general practitioner, and particularly the doctor who practices in the small community, realizes the advantages he has over the specialist who practices at the Dispensary and the University Hospital. In knowing the family—the various sicknesses they have had, their heredity, their environment, and their surroundings, you have a decided advantage over us. We all know that patient's have families, this is an obvious statement. Obvious also, is the statement that the patient is a person, but only recently has medicine given this fact wider recognition, and considered disease a problem affecting the individual as a whole. Far seeing doctors now are beginning to realize that just as the diseased organ can not be considered apart from the patient, so the patient can not be considered apart from his family and his community. His illness may be profoundly affected by the stress and strain of these common relationships.

The first Children's Rheumatic Heart Clinic was established in Nebraska at the Dispensary of the University of Nebraska Medical School in 1928, after the pediatrician realized that students were leaving the University without a knowledge of the frequency of rheumatic infection in children. This clinic has continued since that time.

In 1937, I gave a resume of the number of cases seen and cared for over a period of nine years. With the limited facilities we had at our disposal, we apparently made many children happier by advising the parents as to the care of their children. In 1944, we presented a program to the Children's Bureau which met the qualifications necessary to establish a State Rheumatic Fever Program, functioning out of the University Dispensary. We were the nineteenth state in the union to qualify, and we were allotted, at that time, $30,000 for clinical investigation and care of rheumatic heart disease in children. The program took over the Children's Heart Clinic and added the necessary personnel, which consists of a full time medical social worker, a stenographer, and, recently, added a public health nurse. We have our own offices and our own records which are complete in all details. The children are registered in the Dispensary as well as with the State Rheumatic Fever Clinic so they may have the benefit of being referred to other clinics for consultation. This program includes, and at the present time is limited to Douglas and Sarpy Counties. We are considering a center out-state where a diagnostic clinic will be held periodically. A central clinic which is held at the University Dispensary was expanded from two a month to one a week, beginning the second year of the program. We are finding that one a week is not sufficient to take care of the children returning for observation and those coming in for the first time. For this reason, we are considering increasing the number to two clinics per week. Any child residing in these two counties, suspected of having rheumatic fever or heart disease, is eligible for diagnostic examination. At the time of referral, it is a referring physician's privilege to indicate whether he wishes consultation services only, or is referring the child for complete care. If the child is being referred for complete care, authorization for medical care is given, provided the family can not take care of it through their own resources. Economic eligibility for medical care is determined by evaluating the financial situation and liabilities of the child's family in relation to the cost of needed care. Medical care under this program includes diagnostic examination and follow-up care for cases accepted, and needed hospitalization and convalescent home care. Diagnostic examination includes laboratory services as: Complete blood count, sedimentation rate, urinalysis, x-ray, E.K.G., and any other laboratory tests that might be indicated; hospital care for the acutely ill, and convalescent home care, if the child's own home situation is not suitable. When the child returns to his own home, follow-up nursing care is provided by visiting nurses, or the local public health nurse under the supervision of the Rheumatic Fever Program. Over a period of years I have found that many social situations, such as poor physical environment in the home, emotional disturbances because of lack of understanding on the part of the parents, and other unfavorable situations can undo all the good that medical care may have been able to accomplish while the child was hospitalized or in a convalescent home.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

In a specialized program we have the benefit of the medical social worker whose efforts are entirely directed toward influencing attitudes of the child and his family; in contacting local resources, such as social agencies to help the family to make changes in their social and environmental situation. The medical social worker brings to the doctor at the time of diagnostic examination a complete history obtained through her visits to the home, or information received through interested agencies. This report covers the history of the family, the child's personality, behavior difficulties in relation to his illness, his family, his school associations, etc. It also covers the parents's ability to care for the child financially, socially, and physically. There is special attention given to the child's environment, particularly regarding the housing, where located, dry or damp, uniform heat, number of rooms, whether the child has his own bed or bedroom, whether or not he will get the proper rest and care at home. The case worker and the public health nurse are also present at the clinics and available to the pediatrician and to the family before and after clinics to interpret and discuss the emotional, social and environmental problem of the child, which may have a bearing on the medical recommendations. The case worker also arranges for home bound teachers through the local board of education, also for vocational rehabilitation when this is ordered by the physician, and contacts the various organizations who can assist in various ways of improving the home conditions.

Since the beginning of the program, we have held 92 clinics. 180 children have been certified for medical care. 11 more children have had diagnostic examinations and are awaiting final decision pending laboratory findings. 139 families are represented by the 180 children. 56 of these families give definite history of rheumatic fever or heart disease in one or more. 55 children are still on the list awaiting appointments for diagnostic examination. In breaking down these numbers into age groups, we find 27 in the preschool group, 95 from 5 to 10 years of age, 50 from 10 to 15 years of age, and 8 in the 15 to 21 year age group.

It might be of interest to give one of the numerous case histories which show the importance of a good family history.

J., age six years, was referred to us when he and his two brothers were being admitted to the Masonic Home because of family neglect and beginning juvenile delinquency. The pre-admission examination at the Masonic Home showed this child to have a presystolic murmur at the apex and the child was diagnosed as having rheumatic heart disease.

The social history reveals that J. is one of a family of ten, eight children ranging in age from eleven years to one month. The father, age fifty-two, is a painter by trade and has a most irregular employment record. He was rejected by the army in World War I because of a "heart condition." According to the father, his ailment began at about age ten, when he had intermittent attacks of joint and muscle pains. But because of the family financial situation, he had no medical care during his childhood, and was not aware of his heart condition until his late adolescence. This heart condition was confirmed by the army examination. His mother died at an early age of heart disease and his father died at age fifty-five of a heart condition.

J.'s mother is thirty-one years of age and has been told with each pregnancy that she has a bad heart.

While we do not yet know what a medical examination will reveal on the boy's seven brothers and sisters, we will know in the near future as it is our policy to schedule sisters and brothers of active rheumatic fever cases for clinic examination as soon as possible. However, the eleven year old sister from the parent's account, does have quite significant symptoms, such as: Intermittent attacks of fever, frequent upper respiratory infections, increasing irritability, and does not want to go to school.

Is it any wonder that these children present a problem of early delinquency since they have all their lives been deprived of everything except the barest necessities to maintain life. The present house is very inadequate from every standpoint, and especially so where there is rheumatic fever in the family. Overcrowding, dampness, drafty rooms, poor heating facilities, etc., all these are recognized as factors in rheumatic fever, and this family has them all. Through our program, convalescent home care will be arranged, and when the child is in condition, his tonsils and adenoids will be removed, decayed teeth will be taken care of. By removing all foci of infection and treating the child as a whole, and by regular follow-up observation in our clinics, we believe that his heart will respond to treatment. He will later be able to be trained for a vocation so that he may have gainful employment and be able to live a fairly normal, useful life.

If I were to recommend a text book or a "must book" for the doctor, I would recommend the book "Patients Have Families," written by Dr. Henry B. Richardson, Associate Professor of Clinical Medicine, Cornell University Medical College.

REFERENCE

State Rheumatic Program for Children: Nebr. State Med. Journal, Vol. 30, page 160, May, 1945.

Clinical Aspects of Rheumatic Fever*

CLYDE MOORE, M.D.
Omaha, Nebraska

In this discussion I will not attempt to go into the details of etiology and symptomatology but will stress some of the later ideas in regard to etiology and differential diagnosis.

The actual incidence of rheumatic fever in the United States is not known because, despite our increase in knowledge of rheumatic fever, no specific diagnostic test is known. The reported incidence will vary depending upon where and how the data is collected; whether by surveys, the development of a rheumatic register, making the disease reportable, or the study of hospital records.

It is said that rheumatic fever is the most common cause of death of children between the ages of 10 and 14 years. In my own practice I have not found this to be the case. This might be explained by the factors which enter into the etiology of rheumatic fever. Let us discuss that phase briefly before we elaborate further on the diagnostic features.

According to Coburn there are three stages in the development of rheumatic fever. Phase I, a streptococcal pharyngitis due to group A-hemolytic streptococcus. This may be a very mild attack or a moderately severe attack. Following Phase, I, there is a latent period of 1 to 3 weeks which he calls Phase II. Then we have Phase III, the period of development of acute rheumatic fever. As a result of this observation several theories of etiology have been developed.

First, hypersensitiveness to streptococci. This has been suggested by:

1. The latent period between the initial streptococcus infection and the development of acute rheumatic fever.

2. The fact that it has never been possible to demonstrate the streptococci in affected tissues or the blood during Phase III.

3. The similarity to serum sickness, polyarthritis, skin manifestations, leukocytosis and fever. Apparently no definite proof has been brought forward to substantiate this theory.

A second theory is that the streptococcus prepares the way or acts in symbiosis with an unknown virus. So far no virus has been demonstrated and no one has been able to transmit rheumatic fever to animals. The only thing which seems definitely established is that the group A-Beta hemolytic streptococcus is an important, if not the important factor, in the etiology.

There are a number of predisposing factors:

1. Climate. The disease is found chiefly in temperate zones.

2. Season. The peak of incidence in the United States occurs in January and February on the west coast, and March and April on the east coast. This also apparently varies according to other factors such as crowding in army barracks, the humidity of the particular seasons, the presence of other epidemics such as scarlet fever, etc.

3. Race. The attack rate is lower in Negroes.

4. Age at onset. The disease is rare in children under 3 years of age. The greatest incidence occurs between the ages of 5 and 15 years. The first attacks are most common between the ages of 6 and 8 years.

5. Socio-economic factors. These factors may explain why rheumatic fever is not as common in private practice as it is in the clinics.

a. The disease is relatively uncommon among children from wealthy or middle class homes.

b. It is essentially an urban disease.

c. Infection and crowding together of susceptible individuals, rather than deficient diet, may be the explanation.

6. Familial incidence. According to Wilson and Schweitzer, there is a higher percentage of children born of rheumatic parents who contract the disease, than children born of non-rheumatic parents.

DIAGNOSIS OF RHEUMATIC FEVER

Despite our increase in knowledge of rheumatic fever no specific diagnostic test has yet been brought out. We must consider all of the factors in the case under study; the etiology, the course of the disease and the physical manifestations. This being the case, it is important to have rather strict diagnostic criteria. Unless this is done there is an uncertainty as to the value of statistics.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

The study of programs of prevention and care is obviously hindered and, as the results of too enthusiastic lay and professional pronouncements, there is danger in producing unnecessary worry about the disease.

It is a serious disease. The disease should be given every care and study possible but we should be reasonably sure that we are dealing with rheumatic fever before making the diagnosis and possibly making a psycho-neurotic out of our patient. An undiagnosed fever, a low grade toxemia, a rapid sedimentation rate, muscle pains, etc., do not of themselves furnish enough evidence upon which to make a diagnosis of rheumatic fever. True, they occur in rheumatic fever but they also are found in para-nasal sinus infections, chronic adenoid infections, tuberculosis and other subacute and chronic infections. Unfortunately, the typical book picture of rheumatic fever is not often found in children. The migrating polyarthritis with swollen, red, painful joints is not a common occurrence in the age group in which the diagnosis is important. The best we can do at present is to set up certain major and minor diagnostic criteria.

The major manifestations are:

1. Carditis.
2. Arthralgia.
3. Chorea.
4. Rheumatic nodules.
5. Recurrences of rheumatic fever.

1. Carditis. To establish the diagnosis of active carditis we should have evidence of definite cardiac enlargement, significant cardiac murmurs, particularly a systolic murmur, heard best at apex, transmitted to the axilla and replacing the first sound, pericarditis, and signs of congestive failure.

2. Arthralgia. This is a migrating polyarthritis. In children, it may be so transitory that little attention is paid to it, or it may be moderately severe in its presenting symptoms.

3. Chorea. About one half of all rheumatic fever patients (young patients) have chorea at some time. Three fourths of young chorea patients develop, in time, other manifestations of rheumatic fever. T. D. Jones of Boston, says, "The presence of definite chorea, associated with questionable signs and symptoms, helps establish a definite diagnosis of rheumatic fever."

4. Subcutaneous nodules. These are nodules varying in size from small shot to large pea. They are most numerous on fingers, hand, wrists, or about the elbow, knees, spines of vertebrae and scapula. They are often found on the scalp especially in the region of the occiput. The nodules are seldom tender but increase in size rapidly and remain for weeks or months. Pathologically, they are essentially the same as the submiliary rheumatic nodule of the myocardium. Jones found 41% of cases of rheumatic fever developed subcutaneous nodules at one time or other.

5. Recurrences of rheumatic fever. "No feature of rheumatic fever is more striking or more important than the tendency of the disease to recur: A history of previous definite rheumatic fever, or rheumatic heart disease, is strong evidence of the existence of active rheumatic fever in the presence of even mild signs and symptoms." T. D. Jones. While this latter tendency is probably not what we might call a major manifestation in making the original diagnosis, it is very important in interpreting some of the obscure manifestations in recurrent attacks. Minor manifestations. There are a number of symptoms which occur commonly in rheumatic fever but which are not specific. These are classified as minor manifestations. Among the most common are:

Fever. Found in rheumatic fever. It may be high and intermittent in an acute attack or a low, more or less continuous fever, in some cases. However, as a single symptom, it is not diagnostic.

Abdominal pain. There is nothing definitive about this pain.

Precordial pain. If significant, other evidences of carditis are present. It is a very frequent finding in cases of neuro-circulatory asthenia.

Rashes. Erythema marginatum is the most characteristic and ranks in importance almost as high as subcutaneous nodules.

Epistaxis. Non-traumatic nose bleeds are common in rheumatic fever. We see them very commonly, however, in children of the rheumatic age period due to superficial position of the septal artery, to dryness of mucous membrane, congestion from chronic sinus or adenoid infection, and in allergic rhinitis. Epistaxis should be considered, however, in conjunction with other signs in arriving at the diagnosis.

Other common symptoms are fatigue, pallor, sweating, loss of weight, headache, vomiting, bursitis, and pleuritis.

Laboratory findings. Dr. Morrow will discuss these so all that I will say is that all laboratory abnormalities found in rheumatic fever are non-specific in character. They are often helpful and are of undoubted value in helping to make the diagnosis. How then can we be reasonably sure of a diagnosis of rheumatic fever? The following have been suggested as reasonably certain diagnostic criteria:

1. Any combination of the major manifestations; carditis, arthralgia, chorea, nodules and/or a verified history of previous rheumatic fever.
2. The combination of at least one major manifestation with two minor manifestations. This may lead you astray unless the family history, the relation to a hemolytic streptococcic infection, and the development of the symptoms are taken into consideration.
3. The presence of rheumatic heart disease increases the diagnostic significance of the minor manifestations when no other cause for the latter symptoms exists.

If these criteria are used we would probably have a better evaluation of the frequency of the disease and the results of treatment.

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Evaluation of Laboratory Procedures in Rheumatic Fever*

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Certain laboratory procedures have been proposed in recent years to determine the presence of rheumatic infection, to measure the degree of rheumatic activity, or to ascertain the termination of the rheumatic process. The value of each of these procedures, and its exact significance in rheumatic disease, has been questioned by many; however there are those, both students of rheumatic fever and practitioners, who have come to the realization that many of these procedures, when used discriminately, are of definite value in obtaining a more complete picture of the rheumatic process. Let us state now, that none of these laboratory criteria, either singly, or in combination, can be relied upon for a complete estimation of the rheumatic activity. It is only through their repeated use, in conjunction with a thorough analysis of the patient and his response to the disease process, that one can evaluate the rheumatic activity.

It is unfortunate that there is still no specific laboratory test for rheumatic fever. In the absence of a specific test, non-specific ones are employed, and for this reason, the final decision regarding rheumatic activity, rests upon clinical judgment. Of these non-specific laboratory criteria, the ones most generally used include, hemoglobin determination, red and white corpuscle counts, erythrocyte sedimentation rate, electrocardiographic tracings,x-ray and ortho-diagraphic tracings, vital capacity determinations, antistreptolysin titers, and urinalyses.

HEMOGLOBIN AND ANEMIA

There is a lowering of the hemoglobin with evidence of anemia in most every case with rheumatic disease, particularly at the onset, during the acute episode, and almost always when there is evidence of active rheumatic carditis. Often the degree of anemia is in direct proportion to the severity and the duration of the manifestations of the disease. In the mild cases of rheumatic disease, this anemia is encountered less frequently.

LEUCOCYTOSIS

The white blood count during the acute phase is usually elevated, and may be as high as 15,000 to 24,000, with a corresponding increase in the polymorphonuclear leucocytes up to 90 to 95%. As the process passes into the subsiding stage, the leucocyte count falls rapidly to normal, and for this reason is not a reliable guide as to the degree of activity. A leucocytosis continuing after a clearing of the rheumatic process, especially when associated with a persistent low-grade fever or a slightly elevated sedimentation rate, should indicate that the patient should be investigated further for the possibility of some other focus of infection, or that a smouldering rheumatic lesion may exist.

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SEDIMENTATION RATE

Despite the observations of some clinicians to the contrary, the erythrocyte sedimentation rate has been generally accepted as the most useful laboratory test in evaluating the rheumatic process, its presence, the degree of activity, and the termination of activity. Certainly it has its limitations, and cannot be relied upon as a specific test for the diagnosis of the disease, or in absolute evaluation of the activity; however, in the great majority of cases, it has been found to be the most sensitive and the most reliable of all the laboratory procedures in rheumatic fever.

Early in the disease process, the sedimentation rate usually becomes elevated, at least to the questionable range of the upper limit of normal, particularly so if the onset is insidious in type. With a more acute onset, the sedimentation rate becomes elevated more rapidly and often to a higher level. For this reason, this test is probably used more routinely in determining the presence of rheumatic infection than any other laboratory test. Certainly it denotes activity, rheumatic or otherwise; and if used concommitantly with other positive clinical and laboratory findings, when no evidence of other infection can be elicited, it is of definite value. Certainly there are exceptions to the rule, as there are in most every laboratory or clinical test in medicine; however these exceptions are infrequent, and if this test can be placed in its proper perspective, considerable reliance can be placed upon it. An elevated sedimentation rate alone does not indicate rheumatic disease, but only when associated with other signs of the disease.

Having established the presence of rheumatic disease, the correct determination of the activity of the infection is of paramount importance. This is necessary in order to treat these patients adequately, to determine when ambulatory activities may be instituted, and to evaluate their progress and their prognosis. Aside from the clinical improvement, the subsidence of fever, the return of the blood picture to normal, and the normal relation between the waking pulse rate and the sleeping pulse rate, the sedimentation rate is usually found to be the most reliable test for the determination of rheumatic activity.

Accordingly, the sedimentation rate has become accepted as the best criterion of complete quiescence of the rheumatic process. Application of the sedimentation test to this extent, depends upon the assumption, that there is at the time no other process in the body which of itself increases the sedimentation rate. If the patient shows no evidence of infection at the time of the test or within a period of 2 to 3 weeks, one can be quite certain that the results of the sedimentation test are reliable. In a patient otherwise apparently well, the failure of the sedimentation rate to return to accepted normal values is regarded as evidence of continuing activity of the rheumatic process. There are a few exceptions to this rule, as evidenced by some children, particularly girls in the adolescent or preadolescent age-group, who after the cessation of all other conventional indications of rheumatic activity, will continue to have an elevated sedimentation rate. If discretion is used in these cases, and they are allowed gradual increasing activity, the sedimentation rates will usually return to normal in a short time; however, one must always consider the possibility that, the persistence of the elevated sedimentation rate might be due to an unrecognized smouldering rheumatic lesion.

The sedimentation rate may be normal in chorea. There is a sudden marked drop in the sedimentation rate in beginning cardiac failure, often prior to any other signs of increased venous pressure or cardiac changes; however, the sedimentation rate usually becomes elevated again when decompensation has disappeared. Salicylates produce a drop in the fibrinogen and prothrombin levels in the blood, and may thus cause a lowering of the sedimentation rate. However, much larger doses of the drug than can be tolerated are required to affect this lowering.

No attempt will be made here to enter into the vexed question as to the best method for determination of the sedimentation rate, or the necessity for, and the correct method of, correction for anemia. Suffice it to say that if the anemia is very marked, or if the packed cell volume is below 30%, correction factors should be used, however there is considerable question as to how much reliance can be placed upon these corrected values. If a moderate anemia is present, the sedimentation rate is probably of little value.

The question of the normal limits of the sedimentation rate is, again, not within the scope of this paper, since each method has its own set of normal values.

In summary, then, the sedimentation rate, used discriminately, is one of our most reliable aids for the determination of the activity of rheumatic infection. It should be routinely employed in all rheumatic patients, being repeated at weekly or biweekly intervals, preferably at the same time of day.

ELECTROCARDIOGRAM

The electrocardiographic change most frequently found in rheumatic fever is a disturbance in the auriculoventricular conduction time as evidenced by a prolongation of the P-R interval. This change may be seen in varying degrees up to complete auriculoventricular dissociation. This prolongation of the P-R interval is usually one of the earliest findings suggestive of myocardial involvement. It is often very transient, so that frequent tracings must be taken in order to find it. Occasionally one sees extrasystoles and auricular fibrillation, and when pericarditis occurs, flattened, inverted or diphasic T waves are usually found, particularly in Leads I and II. With pericardial effusion one finds low amplitude in all the waves. Many of these findings are transient, and are not specific of rheumatic fever per se; however, when they do occur, and if used in conjunction with other positive findings, they are of distinct value.

X-RAY

X-ray is of value in determining enlargement of the cardiac chambers. It is preferable to have serial x-rays, and if the patient is ambulatory, a fluoroscopic examination in the anterior-posterior and anterior-oblique positions is of value in determining cardiac enlargement. A dilitation of the left auricle as seen with the aid of barium in the right anterior -oblique position is not uncommon in early rheumatic fever. Orthodiagraphic tracings of the heart are also of value in determining exact cardiac size.

VITAL CAPACITY

Some observers believe that measurement of the vital capacity is a useful test for rheumatic activity. This test is based on the assumption that the diminished reserve is probably due to rheumatic carditis. There is general agreement that a diminished vital capacity is one of the earliest signs of left ventricular failure, and there are those who believe that it is the most sensitive single index of the progress of patients with rheumatic carditis. If it is employed, frequent readings are desirable to denote any change. Furthermore the normal range is quite wide, necessitating the establishment of a base line for each child.

ANTI-STREPTOLYSIN TITER

Concommitant with the onset of the disease, there is an elevation of the anti-streptolysin titer. It remains elevated for a long period of time, often after all other conventional signs of activity have disappeared. For this reason it is difficult to evaluate, and as a guide to the degree of activity, or a guide in treatment, it is rather unsatisfactory.

URINALYSIS

Urinary changes are usually minor and notable for their absence. During the acute phase of the disease, albumin may be present, and there may be seen on microscopic examination a moderate number of white cells.

SUMMARY

In conclusion, then, each of these laboratory procedures has its place in the complete diagnostic study of the rheumatic patient. The interpretation and evaluation of each can only be made when corroborated with all other laboratory and clinical findings. In the end, the final decision as to the presence or absence of rheumatic disease and the degree of its activity, rests upon clinical judgment.

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Modern shampoo preparations are no longer soaps but chemical products containing sulfated castor or olive oils and sulfated fatty alcohols; the mixture is a superior cleanser and it rinses clean.

BUY
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Prevention of Rheumatic Fever*

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Probably the greatest advance in our knowledge of the care of the rheumatic patient is the recent development of rather simple measures for the prevention of recurrences of the disease. This cannot be said for prevention of the initial attack.

The first attack of rheumatic fever could, no doubt, be much more easily prevented if we understood the cause a little better. One thing we do know about the original attack is that it occurs less frequently in tonsillectomized children. Upon the basis of this fact, it has been suggested that all children have their tonsils removed before the age of five. It should not be necessary to point out the fallacies in such a view. It is less common in warm, dry, mild climates and upon this basis some bacteriophobes have moved their families to such a climate as a preventive measure. During the recent war, the U. S. Navy placed 250,000 of their personnel on a daily dose of 1 gm. of sulfadiazine. A group of equal size was used as a control. Carter & Coburn reported the results of this study: the incidence of streptococcal infection dropped 85%, of severe respiratory disease 80-90% and there was only one initial case of rheumatic fever as against 14 in the control group. If any measure is to be used routinely for the prevention of the initial attack of rheumatic fever in children the latter seems to me to hold the greater promise.

The first attack of rheumatic fever, serious though it may be from a financial and social point of view, is seldom as serious from the medical point of view. Rarely does permanent serious, demonstrable cardiac damage result from the first attack. Still more rarely is the initial attack fatal. It has long been observed that the recurrences of acute rheumatic fever are much more to be feared than the first attack, for it is the recurrences that produce the more serious cardiac damage. It is for this reason that we are particularly interested in the prevention of the second and third attack.

Because it has long been recognized that infection of the nose and throat, especially sore throat and tonsillitis, frequently preceded attacks of rheumatic fever, tonsillectomy was widely performed for many years in the hope of decreasing the frequency and severity of upper respiratory infections, thus preventing recurrences of rheumatic fever. The hope was not fulfilled. Tonsillectomized patients continued to have rheumatic recrudescences nearly as often as before, although Allen and Baylor showed that the incidence of rheumatic heart disease was reduced by tonsillectomy.

Because tropical and subtropical zones are relatively free from hemolytic streptococcus and from acute rheumatic fever, Coburn sent ten rheumatic fever patients to Puerto Rico for six months and noted no recurrences while there. As soon as the group returned to New York (during the hot summer months) recurrences followed.

In 1936 it was shown that small daily doses of sulfanilamide lessened the number of streptococcus infections in mice (Buttle, Gray & Stephenson). Immediately after this work was published, Thomas and France, working at Johns Hopkins, started giving small (1-1.2 gm.) daily doses of sulfanilamide to a large number of known rheumatic children (79 patient-seasons) in the hope of preventing recurrences. In 1941 they reported a four year experience with no recurrences as against fifteen in the control group. The drug was given from October to June. Coburn and Moore in 1939 reported similar results on a smaller group treated for only three seasons. Many other observers have since reported similar results (Stolwell & Button; Chandler & Tausig; Kuttner & Reyersbach; Hanson, Platou & Dwan).

Experience seems to indicate that the results are better if the drug is given 365 days of the year than just during the winter. The usual recommended dose is 0.5 gm. twice daily. Sulfathiazole and sulfadiazine are the drugs of choice.

No serious toxic effects have been observed. A few patients have shown slight transitory leukopenia but there has been no granulocytopenia reported. There is no evidence that any of these patients have become resistant to the drug. In one series there developed two cases of subacute bacterial endocarditis among the control patients and there were four deaths among the controls while there were no deaths among the treated patients. It is felt that the blood and urine should be watched closely during the first six weeks of administration of the drug and about every month thereafter.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

You may wonder how long it is necessary to give this drug and how long it may be given with safety. It should be given day in and day out, year in and year out until the child is at least fourteen years of age. One child has been taking the drug for eight years without rheumatic recurrences and without harm.

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Treatment of Rheumatic Fever*

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To date there is no specific therapy for rheumatic fever. The specificity in this disease is not an exogenous etiologic agent, but rather an individual specific predilection for reacting to certain streptococcic antigens in such a way that the rheumatic syndrome arises. In the rheumatic, there is apparently a conditioned reaction which is hereditarily predisposed, in which the individual's defense mechanism lacks the power to advance from sensitization to immunization.(1)

Coburn and Kapp(2) have produced experimental evidence indicating that salicylates suppress the antigenic activity of proteins. It is postulated,(3,4) therefore, that sodium salicylate or acetyl salicylic acid may have a specific value in preventing the allergic tissue responses to the hemolytic streptococcus. Whether or not the action is specific, salicylates are definitely helpful in controlling fever, increasing the appetite, decreasing pain, and lowering the pulse and sedimentation rate. A blood salicylate level of 35-45 mgm per cent is desired. An effective level usually is maintained with the daily administration of a grain per pound per day if sodium bicarbonate is not administered concomitantly, with its resultant increase in excretion of salicylic acid.(5) Therapeutic levels of the drug can be maintained by oral administration, obviating the danger of intravenous therapy. The salt loss due to increased sweating should be replaced.(6) Overdoses of salicylates produce toxic symptoms, and deaths have been reported. The drug acts directly on the respiratory center, producing deep, rapid respirations. If this effect is prolonged, carbonic acid is exhaled to the point of alkalosis. The carbon dioxide combining power is low, but the serum PH is increased. It also has been suggested that salicylates have an inhibiting effect on carbohydrate metabolism. Thus the acid deficit alkalosis may be reversed by the development of ketosis. In children the commonly mentioned symptoms of ringing in the ears and vomiting actually are relatively uncommon. The early symptoms to be watched for are increased pulse rate, rapid, easy breathing and disorientation. If toxic symptoms appear, the drug should be discontinued, and if necessary, lactate-Ringers solution containing glucose should be given intravenously.

Salicylic acid has been found to be a degradation product of Dicumarol, which decreases blood coagulability. The hemorrhagic tendencies noted in rheumatic fever may in part result from salicylate administration. Meyer and Howard(7) were able to produce hypocoagulability of the blood and hypoprothrombinemia with 20 to 80 grains of sodium salicylate or aspirin. The administration of one milligram of vitamin K per gram of salicylate prevented this effect. Govan(8) subsequently found that the prothrombin activity returned to normal by the ninth day of medication without vitamin K administration. In his experience, the prothrombin deficiency attending the administration of salicylate compounds did not appear to be a constant or dangerous feature.

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*Part of Round Table Discussion on Rheumatic Fever, Omaha Mid-West Clinical Society, Oct., 1946.

Sulfonamides have proved to have value in preventing polycyclic rheumatic fever, but they are valueless in active treatment.

Coburn(9) has pointed out the importance of diet and the significance of nutrition in the rheumatic state. Certain dietary deficiencies appear to be one of the specific conditioning factors rendering the host cells susceptible to the streptococcic antigenic response. This would explain the frequent occurrence of the disease in the under-privileged.

There is evidence suggesting the need of increasing practically all of the dietary components. Most rheumatic fever patients have had diets inadequate in protein and calcium. Many factors are known to alter the calcium and nitrogen balances, particularly in children. Hyperthyroid and hypothyroid states may produce negative calcium and nitrogen balances, and hyperthyroidism is known to predispose to rheumatic fever.(10,11)

The water soluble vitamins B and C are diminished in rheumatic fever, and should be added as a dietary supplement. Most patients with an active rheumatic infection suffer from secondary anemia; consequently, iron should be supplied in adequate dosage. Vitamin D and calcium should be supplied in quantities to meet the needs of growing children. The diet should be fortified with all the essential components, but excessive weight gain should be avoided.

Chronic foci of infection alter calcium and nitrogen balances,(12) and should be eliminated in all growing children. This is true whether or not they have rheumatic fever and regardless of whether the infection occurs in the tonsils or elsewhere. To minimize the danger of subacute bacterial endocarditis, operative procedures directed toward the removal of infected foci should be preceded by adequate chemotherapy.

The primary concern in treatment of rheumatic fever is the prevention of cardiac damage. The heart can be protected best by keeping the patient at absolute bed rest until there is no evidence of rheumatic activity. Although it is impossible to determine beyond all doubt the quiescence of the disease, the sedimentation rate and blood count should be normal, and the electrocardiogram should reveal a normal conduction time. Clinically, the patient should be asymptomatic, gaining weight, eating well and maintaining a normal temperature and pulse rate. Since the child may feel well in spite of active cardiac pathology, it is often difficult to maintain minimum physical activity even with the patient in bed. To this end his educational needs ought to be met, and occupational therapy should be provided. Prolonged rest is best maintained in appropriate convalescent institutions. Return to full activity should be gradual and well within the cardiac threshold.

In acute myocarditis, alleviation of apprehension is important. Sedation may be maintained with one-half to one grain of phenobarbital three times daily, or with one-fourth to one-half grains of codein two to four times daily. Cardiac stimulants are contraindicated. Oxygen may be used as needed. The return to activity should be extremely cautious and accomplished gradually over a period of months.

If the heart damage progresses to the point of decompensation, maximum rest is essential. Fluid intake should be limited to one quart per day, and the diet should be salt free. Digitalis is indicated only in case of cardiac decompensation, but is otherwise contraindicated in rheumatic heart disease, as there is already an impairment in the conducting mechanism. Diuresis may be secured by the administration of ammonium chloride, ammonium nitrate or potassium nitrate, after which a mercurial diuretic is given intravenously.

In conclusion, a therapeutic approach has been presented with a twofold purpose. The administration of salicylates presumably suppresses the host's cells' antigenic response to the beta hemolytic streptococcus. Secondly, an effort is made to increase host cell resistance to the infection by maintaining good nutrition. Having assured an adequate dietary, efforts to secure its maximum utilization are directed toward removal of chronic foci of infection, and toward correcting endocrine glandular dyscrasias. During the active rheumatic state, the primary concern is the prevention of cardiac damage. To this end absolute bed rest is essential until all the possible criteria for rheumatic quiescence have been filled. In addition to bed rest, in myocardial envolvement sedation and oxygen are given as necessary. Digitalis is used only if decompensation results. Fluids are restricted and salt prohibited. Diuretics are used as indicated.

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TREATMENT PLAN FOR ROCKY MOUNTAIN SPOTTED FEVER

Rocky Mountain spotted fever, a tick-borne disease, which is often severe and sometimes fatal, is geographically scattered over 47 states. Since few physicians have the opportunity to treat many patients with this disease, a Greensboro, N. C., doctor offers a comprehensive plan of treatment applicable to every case.

Writing in the April 5 issue of The Journal of the American Medical Association, Samuel F. Ravenel, M.D., from the pediatric service of St. Leo's Hospital and the Sternberger Children's Hospital, suggests that treatment with para-aminobenzoic acid, one of the vitamin B complex group, will eliminate practically all deaths from this fearful disease.

Treatment of five patients with this drug, in combination with standard methods, produced "rapid" and "brilliant" results, states the author.

The dramatic effect of the drug is well illustrated by the reaction of a patient, 17, who entered St. Leo's hospital with a history of tick bite, headache, malaise, fever and chills, rash and delirium. Because one of the symptoms is dehydration, the patient received large amounts of fluid, salt in the daily diet, also vitamins and blood transfusions. Para-aminobenzoic acid was given every two hours by mouth in a solution of sodium bicarbonate.

Within 24 hours the condition of the patient improved. On the fifth day the temperature dropped sharply, reached normal on the sixth day and remained there. Also on the sixth day, the rash faded and the boy was practically well.

"In comparison with experience with Rocky Mountain spotted fever in the past," states the physician, "this was a brilliant therapeutic result in a rather severe case. Ordinarily this boy might have been expected to be extremely sick for two or three weeks."

The rickettsias, bacteria-like parasites, responsible for this disease do not respond to sulfonamide compounds. The author states that they are not only useless but probably harmful in the treatment of this disease. Moreover, he adds, "although rickettsias are reported to be sensitive to penicillin, this agent has proved useless in the treatment of Rocky Mountain spotted fever."

Reviewing the status of the disease today, the author states: "The name Rocky Mountain spotted fever is now obviously geographically incorrect, since this disease has been found in 47 of the 48 states. Ten years ago 70 per cent of the cases occurred in the Mountain and Pacific states, while 87 per cent were reported from the Central and Eastern states in 1945. Its incidence and importance to public health in the United States are shown by the occurrence of 400 to 560 cases with 90 to 137 deaths each year during the past decade."

Management of Urinary Tract Emergencies by the General Practitioner*

Part I

LEROY WILLIAM LEE, M.D., and EDWIN DAVIS, M.D.
Omaha, Nebraska

Urinary tract emergencies, in most cases, are seen first by the family physician and later by the urological consultant. Judgement and decision early are of the utmost importance and may well spell the difference between life or death, health or invalidism, for the patient.

Specific methods of care in patients with urinary tract disease vary among urologists and the practitioner who reads any amount of published material on the subject may find himself confused as to what is a satisfactory plan of immediate care in any emergency. It seems therefore, that an attempt to clarify the situation, suggesting definite courses of treatment in the light of the most recent and acceptable methods should be well worth the effort.

Urinary tract lesions which may present themselves as emergencies, requiring decision and action, may be classified as follows: acute urinary retention, acute urinary extravasation, gross urinary hemorrhage (hematuria), reno-ureteral colic, acute urinary tract infection, urinary tract trauma, anuria, and uremia.

ACUTE URINARY RETENTION

The most common causes of acute urinary retention are prostatic obstruction, either benign, malignant, or inflammatory; stricture of the urethra; and post-operative bladder atony. Less commonly seen are ball-valve bladder stone, ball-valve bladder tumor, congenital urethral valve, rupture of the urethra, and the so-called "neurogenic bladder".

Diagnosis is obvious by reason of the history of inability to void and finding the patient with a distended bladder.

The emergency is treated by catheterization. If this is not possible; as evidenced after careful and gentle attempts with soft rubber catheter, styletted catheter, flexible woven catheter, and filiforms; then the introduction of a suprapubic drainage tube may become necessary. Suprapubic cystostomy may ordinarily be done through a small, low mid-line incision under local infiltration anesthesia. Blind suprapubic trocar puncture is a dangerous procedure, even in the hands of experts, by reason of the proximity of the peritoneum. It is desirable that a coude' catheter, a soft rubber Robinson catheter, stylette, woven flexible catheter, and filiforms with followers be included in the armamentarium of each physician located where help is not available.

The differential diagnosis of the causes of acute urinary retention is made from findings elicited from the history, physical examination, and instrumental examination. In the latter are included, when indicated, cystoscopy, endoscopy, x-ray examination, and cystometrographic study. Serology, chemistry, and microscopy of the spinal fluid are important in the study of patients suspected of having "neurogenic bladders".

Following relief of bladder distension the essential elements of after care consist of measures directed toward the investigation and removal of the cause of the urinary retention, if such is possible.

THE ACUTE "NEUROGENIC BLADDER"

Any vesical disturbance (retention, dribbling, incontinence) caused by a lesion in the nervous system constitutes a "neurogenic bladder." In civilian practice such bladders are seen most commonly in patients as post-operative urinary retention following spinal anesthesia, and urinary retention following back or head injuries from any cause whatsoever as well as following neurosurgical procedures. There are many degenerative lesions of the brain and spinal cord which result in "neurogenic bladders," but the bladders so produced cannot be considered emergencies.

The emergency is diagnosed by finding the patient unable to void and the bladder distended. The presence of organic vesical neck obstruction should be ruled out by history in which long standing urinary obstructive symptoms are absent and if necessary cystoscopic examination be done.

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*From the Departments of Urology of the Bishop Clarkson Memorial Hospital and the Hospital of the University of Nebraska College of Medicine, Omaha.

The care of a "neurogenic bladder" which follows traumatic injury to the head or back or a neurosurgical operation on the central nervous system may sometimes be a prolonged and painstaking procedure. Indwelling urethral catheter attached to a modified Munro tidal drainage apparatus should be established as soon as possible. After a week or two of tidal drainage the catheter may be removed and the patient given an opportunity to void. If he fails to empty the bladder satisfactorily as evidenced by the presence of residual urine the tidal drainage should be re-established for a further period of time. Several attempts at voiding following the removal of the catheter may be necessary before satisfactory emptying is accomplished. In some patients such a state is never reached and transurethral resection of the vesical neck or suprapubic cystostomy may be necessary.

ACUTE URINARY EXTRAVASATION

Extravasation of urine may be defined as the passage of urine through the mucous membrane lined anatomical confines of the urinary tract into adjacent soft tissues. There is however more to the condition than simple diffusion of urine through the tissues. Actually there is associated infection of the soft tissues which rapidly develops into a gangrenous cellulitis.

Extravasation of the urine is secondary to and an indication of an intrinsic urinary lesion, which may occur anywhere along the urinary tract from the renal pelvis on down, but it is most commonly seen associated with lesions of the urethra, more especially urethral stricture, either as the result of or following instrumentation or occurring spontaneously. Aside from urethral stricture such lesions as carcinoma of the penis or urethra, urinary stone, foreign body, and trauma may be primary causes of extravasation. Traumatic lesions have been described as those caused by passage of a styletted catheter, sound, cystoscope, bullet or knife. Fractures of the pelvis and direct crushing blows to the perineum are not infrequent causes of urethral injury and extravasation.

Diagnosis of the emergency is based upon history of urinary retention and local findings consisting of edema, redness, and induration involving the scrotum, penis, perineum and rapidly extending upward within the abdominal wall.

The emergency may be treated only by suprapubic cystostomy, thereby diverting the urinary stream, and multiple incisions allowing drainage of the tissues involved.

In considering the diagnosis of the primary cause of the extravasation the history and physical findings are of utmost importance. It is necessary also to distinguish urinary extravasation from extraperitoneal rupture of the bladder, periurethral abscess, and acute epididymitis with scrotal edema. In ruptured urethra with extravasation a catheter may be passed with difficulty, if at all. If it does pass, the bladder urine is usually clear. The bladder is usually **distended.** In extraperitoneal rupture of the bladder a catheter passes with ease and may obtain a small amount of bloody urine. The bladder is usually **collapsed.** In patients with periurethral abscess a history of recent gonorrhea is frequently obtained, as is also the case in patients with acute epididymitis.

The postoperative treatment, after allowing ten to twenty days to elapse following surgery in order to permit the inflammatory reaction in the scrotal and perineal tissues to subside, consists of such measures as may be necessary to re-establish normal urination. Urethral dilatation may suffice, internal urethrotomy may be necessary, or external urethrotomy, including open perineal dissection with excision of scar tissue followed by end-to-end anastomosis of the urethra.

Ruptured urethra with urinary extravasation carries with it a mortality of 40%, although it should be emphasized that the prognosis may be greatly bettered by minimizing delay which in this condition is measured in a matter of hours.

HEMATURIA

Gross urinary hemorrhage (hematuria) should be regarded as a symptom of intrinsic urinary disease until proved otherwise, but never as a disease entity in itself. This symptom, regardless of the patient's false sense of security resulting from spontaneous cessationg of bleeding, should always be regarded as a danger signal calling for investigation until an explanation has been reached. The chief purpose of such investigation is to exclude new growth. In a recent series of 200 patients presenting the symptom of hematuria the most common causative lesions in order of frequency were carcinoma of the bladder, benign hypertrophy of the prostate, non-specific cystitis, carcinoma of the kidney, urinary calculus, urinary tract trauma, urinary tract tuberculosis, and carcinoma of the prostate. There are also many systemic causes of hematuria, but for the purposes of this presentation it is not necessary to go into that classification.

The emergency is established by finding gross (or microscopic) blood in the urine. The immediate treatment depends upon the site and the rapidity of the bleeding. Patients may be seen with a distended bladder from obstruction due to clots. Clots may be evacuated under low spinal or caudal anesthesia by passing a cystoscope or resectoscope sheath and aspirating them with a suction syringe or Ellik evacuator. Following evacuation of the clots, if a bleeding point is found, hemostasis is sometimes accomplished by fulguration with a cystoscopic electrode or the resectoscope electrode. Bladder or prostatic bleeding may at times be so profuse or the bleeding area inaccessible to endoscopic manipulations as to require emergency suprapubic cystostomy with fulguration or actual ligation of bleeding point, with or without removal of the lesion from which the bleeding occurs. Patients with renal bleeding, particularly due to traumatic injury of the kidney, have been seen that required immediate nephrectomy because of impending shock.

Differential diagnosis of the cause of the bleeding is made in every case by history, examination, and urological study consisting of cystoscopic examination, ureteral catheterization, x-ray of abdomen, and retrograde pyelographic study.

Treatment varies with the diagnosis of the primary cause of the bleeding.

RENO-URETERAL COLIC

Sudden mechanical obstruction at the ureteropelvic junction, or anywhere along the course of the ureter, from any cause, results in renoureteral colic characterized by severe flank pain radiating over the distribution of the first lumbar nerve to the lower quadrant, and testicle or labium. The mechanism directly responsible for this classical clinical picture is distension of the renal pelvis, as may be demonstrated by injection through a ureteral catheter of a volume of solution.

Among the most common urinary tract causes of this pain are stone, blood clot, stricture, ureteral kinking from any cause (aberrant blood vessel, nephroptosis, etc.), and crystal showers. It is necessary to be on the alert for renal and ureteral tuberculosis, renal and ureteral tumor, pyelonephritis, pyonephrosis, hydronephrosis, and perinephric abscess in the presence of reno-ureteral colic.

The emergency is diagnosed on the basis of the typical character of the pain. The frequent finding of red cells in the urine, is helpful in placing the cause of the loin pain in the urinary tract, although absence of red cells does not rule out urinary tract disease.

Treatment of the emergency is by sedation and in selected cases by ureteral catheterization, which serves to relieve the distention of the renal pelvis.

Diagnosis of the primary intrinsic urinary tract cause, as well as differential diagnosis from appendicitis, cholecystitis, neuralgia, neuritis, or radiculitis of the first lumbar nerve is made on the basis of the history, physical findings, and complete urological study consisting of cystoscopic examination, ureteral catheterization, x-ray of the abdomen, and retrograde pyelographic study.

Treatment, which is usually surgical or ureteral manipulative depends upon the nature of the primary cause, as determined by investigation. During the acute emergency, ureteral catheter drainage often is exceedingly helpful.

* * *

TRY PABLUM ON YOUR VACATION

Vacations are too often a vacation from protective foods. For optimum benefits a vacation should furnish optimum nutrition as well as relaxation, yet actually this is the time when many persons go on a spree of refined carbohydrates. Pablum is a food that "goes good" on camping trips and at the same time supplies an abundance of calcium, phosphorus, iron, and vitamins B and G. It can be prepared in a minute, without cooking, as a breakfast dish or used as a flour to increase the mineral and vitamin values of staple recipes. Packed dry, Pablum is light to carry, requires no refrigeration. Easy-to-fix Pablum recipes and samples are available to physicians who request them from Mead Johnson & Company, Evansville, Indiana.

Case Records of the Creighton University School of Medicine and Affiliated Hospitals

J. R. KLEYLA, M.D., and B. CARL RUSSUM, M.D.
Omaha, Nebraska

Antemortem and Postmortem Records as Used in Weekly Clinicopathological Conferences by Departments of Medicine and Pathology

A 65-year-old retired farmer was admitted because of a mass in the inguinal region.

For 3 years he had a mass in the right inguinal region. The mass appeared after he slipped and fell; it was associated with pain lasting several days and seemed to radiate up into the abdomen. He consulted a doctor and was told he had a "rupture". The mass had been enlarging gradually and "came out" occasionally when he was on his feet. On these occasions he had rather severe pain radiating into his middle and upper abdomen. About 3 months before admission he suddenly developed pain in the left nipple region, radiating down the left arm and lasting 2-3 hours. Since then he had some pain in the left chest, with unproductive cough and dyspnoea. He had had some nocturia for years. He had lost 12 pounds during the past year.

He had measles and pneumonia in childhood. During his adult life he had always been well. He was one of a large family, with 12 brothers and sisters dead and only one remaining brother alive and well. His mother died of "dropsy" and his father of an unknown cause.

Physical examination on admission showed him to be a well developed man, apparently about 60 years old and not acutely ill. There were no noteworthy changes of the head, hair, eyes, ears, nose and neck. The optic discs were normal. The tongue was slightly coated and the pharynx slightly injected. The cardiac apex maximal impulse was in the 6th intercostal space in the nipple line. On percussion the heart size was within normal limits. The heart sounds were distant but clear. A systolic murmur was heard at the apex and transmitted to the axilla. The blood pressure was 130/80. Lung expansion was moderate and equal on the two sides. Auscultation revealed no abnormalities of the lungs. In the right inguinal region there was a soft nontender mass 4x3 inches across. The right inguinal ring was enlarged and a sharp impulse could be felt in the ring on coughing. On lying down, the above described mass could be reduced in size. The vessels of the scrotal sac were tortuous. The prostate was slightly enlarged, firm and not tender. Both hands and feet were cold.

The temperature was 97, the pulse 92 and the respirations 24.

The urine was normal. The blood hemoglobin was 97 per cent, the red cell count 5,020,000 and the white count 7,800 with 49 per cent neutrophiles and 41 lymphocytes. In spite of his age, because of the disability resulting from repeated hernial protrusion and because of the insistence of the patient, a right inguinal herniorrhaphy was done under spinal anesthesia. The immediate post-operative course was uneventful. On the 9th post-operative day, however, he began to complain of numbness in both feet. Massage gave relief. The next day he developed severe pain in the right leg, extending from the knee to the sole of the foot. The pain was only partially relieved by heat and codeine. The leg was numb, cold and cyanotic and there was tenderness in the popliteal space. The leg was slightly swollen. The pulse was easily felt in the right posterior tibial artery, but could barely be felt in the dorsalis pedis. On the 12th day the pain was less severe, but there were blue spots of the skin over the instep and the leg was cold and dusky. Two days later there was pain in the left leg resembling that in the right, and the left leg became cold and white.

The left lumbar sympathetic 2nd, 3rd and 4th ganglia were injected with 2% novocaine. Desiccated thyroid extract, grains 2, was given twice daily and heparin 50 mg. in 50 c.c. saline were injected intravenously every 4 hours. The legs were put in a heat cradle. The right foot and side of the leg became gangrenous. The pulse became irregular and he died on the 19th post-operative day.

DIFFERENTIAL DIAGNOSIS

Dr. J. R. Kleyla*: In summary this history presents a 65-year-old male with precordial pain radiating to the left arm for a period of 2-3 hours and dyspnea, occurring 3 months before entrance to the hospital for an inguinal herniotomy. At the time of entrance his heart sounds were distant; the apex was in the 6th space at the nipple line, and a slight mitral systolic murmur was heard. Ten days after an inguinal herniorraphy under spinal anesthesia he developed sudden pain, numbness, coldness, and blueness of the right leg, with popliteal tenderness. The pulse was faint in the dorsalis pedis artery. Four days later similar symptoms developed in the left leg. The left sympathetic ganglia were injected with 2% novocaine, thyroid extract and heparin were given, but gangrene of the feet developed and death occurred on the 22nd post-operative day.

Systemic grouping of signs and symptoms indicates that all of the functional disturbance was within the circulatory system. It remains for us to discuss the organic pathology and etiology lying back of this disturbance. The findings point to both cardiac and peripheral circulatory involvement.

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*Clinical Professor of Medicine, The Creighton University School of Medicine.

In a 65-year-old male with precordial pain radiating to the left arm for several hours, followed by dyspnea, distant heart sounds and a slight mitral systolic murmur, the most likely process in the heart would be coronary occlusion. Such an occlusion develops in one of 4 ways: 1. Arteriosclerotic narrowing of the vessel. The absence of preceding anginal attacks, coupled with the seriousness of the one attack followed by the evidence of functional impairment dating so sharply from that time suggest occlusion rather than simply coronary disease. 2. Thrombosis in an already arteriosclerotic artery. It seems quite likely that this was the basis of this man's occlusion. He was 65 and undoubtedly his arteries were atherosclerotic. There were no noteworthy suggestions of arteriosclerosis elsewhere in the body, but this chronic degenerative process notoriously affects arteries in one organ and spares arteries elsewhere. The coronary artery may be badly involved, while those of the circle of Willis or in the kidneys or even the aorta may not be badly damaged. One notes that his eye grounds were normal. This is one location where arteriosclerotic vessels can often be noted earlier than elsewhere. 3. Syphilis of the aortic root partially occluding the coronary orifices. We have no evidence here from a serological stand-point or from physical findings that the man had syphilis, so I think we could rule that causative factor out. 4. Embolus from a vegetation on a heart-valve. There is nothing in the findings to suggest valvular involvement as a source of such an embolus, and this is quite a rare occurrence.

I have discussed coronary occlusion as the most likely diagnosis. I feel that the history of the attack of pain and the subsequent course with evident heart damage rule out both ordinary heart failure with pain and acute upper abdominal emergencies such as perforated peptic ulcer or pancreatic necrosis. We do not have electrocardiographic evidence, which would be very helpful in the differential diagnosis.

Presuming that this man had a coronary occlusion, what has happened to him since? When a large branch of a coronary artery is occluded the patient may die instantly, he may linger for a few hours or days or he may recover, at least partially. This man had apparently made a partial recovery, presuming that he had a coronary occlusion. His functional recovery had not been complete, since he still had pain in his chest, with unproductive cough and some dyspnea. He had had infarction in his heart muscle, the exact site undetermined. We do not have the necessary evidence to estimate whether the lesion involved the anterior or posterior heart surface. The two lesions are approximately equally frequent. He had had a myomalacia cordis and this had not led to rupture of the heart. At the time of operation, approximately 3 months after he had had his coronary attack, we would expect the progress of healing in the heart muscle to have produced a cicatrix, with some active healing still going on and not as yet a well developed collateral circulation. Up to the date of operation there are no symptoms or signs recorded indicating endocardial involvement with thrombosis. There is nothing to suggest renal or splenic or cerebral emboli.

The peripheral circulatory involvement is quite evidently due to an obstruction in the arterial system. This could be due to thrombosis or embolism plus thrombosis. The latter is more probable, since we have a source of such an embolism in a recently damaged heart. We do not have evidence of other embolic phenomena. On the basis of the findings, therefore, my diagnosis would be coronary occlusion with intraventricular thrombosis and a saddle embolus with thrombosis at the bifurcation of the aorta, shutting off the circulation of both legs.

CLINICAL DIAGNOSIS
(FROM HOSPITAL RECORD)

Coronary disease with possible occlusion.

Gangrene of both legs due to circulatory obstruction caused by thrombosis of bifurcation of aorta, complicating a recent right inguinal herniotomy.

DR. KLEYLA'S DIAGNOSIS

Coronary occlusion with left intraventricular thrombosis. Saddle embolism and thrombosis of the bifurcation of the aorta with gangrene of legs.

Recent herniotomy, right inguinal.

ANATOMIC DIAGNOSIS

Mural thrombosis of left cardiac ventricle following coronary occlusion, with saddle embolism of aortic bifurcation and propagated thrombi in common iliac arteries; gangrene of both legs. Anemic infarcts of kidneys and hemorrhagic infarct of spleen. Marked coronary sclerosis.

Recent herniotomy wound, right inguinal.

Hypostatic bronchopneumonia.

PATHOLOGICAL DISCUSSION

Dr. Russum*: The body was well nourished and well developed. There was beginning gangrene of the sole and toes of the right foot, and bluish discoloration of the left foot. A recent healed surgical incision was present in the right inguinal region.

The heart weighed 475 gms. The coronary arteries were thick and tortuous. On cross section the lumen of the distal half of the anterior descending branch of the left and that of the right circumflex branches were reduced to pin-point size by atherosclerotic thickenings of the walls. The wall of the left ventricle was only 6-8 mm. thick in its middle and was scarred on surfaces made by cutting. Inside the tip of the ventricle there was a large firmly attached mural thrombus. In the root of the aorta there were numerous slightly raised yellowish intimal plaques. In the dependent portion of each lung there were a few nodular consolidated areas up to 2 cm. in their greatest measurement. The spleen weighed 300 gms., was somewhat enlarged and firm; at the upper pole there was a dark firm area slightly elevated above the surface and on section dark red. At the upper pole of the left kidney there was a slightly raised conical firm zone with its base just beneath the capsule, on section firm and pale yellow and measuring 1.5 cm. across at its base. In the middle of the right kidney there was a similar zone 3 cm. in its greatest measurement. The abdominal aorta was thick-walled from atherosclerosis and in the lower 3 cm. there was a firm well organized thrombus attached to a roughened zone of the posterior wall just above the bifurcation. The thrombus extended down into both iliac arteries and on into the right femoral.

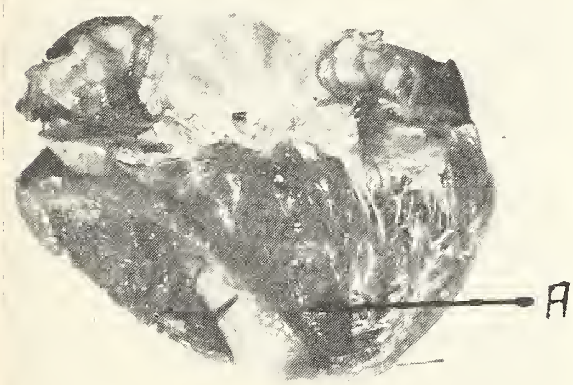

Fig. 1. Thrombus attached to wall of left ventricle at apex (A).

The extreme atherosclerosis of the coronaries, the gross myocardial scarring and the left ventricular thrombosis, suggest that acute coronary acclusion was added to atherosclerotic narrowing several months before entrance when he had the sharp precordial pain radiating into the left arm. The resulting myocardial infarction was replaced by the scar tissue and the softening of the muscle beneath the endocardium resulted in damage to the lining of the left ventricle and thrombosis (fig. 1). Bits of thrombi broke loose and produced the embolic blocking of splenic and renal vessels, with the resulting infarcts found at autopsy. The presence of these embolic phenomena suggests that the block at the aortic bifurcation was also embolic with superadded thrombosis. Where emboli lodge the conditions for development of thrombosis occur. The obstruction at the bifurcation (fig. 2) was responsible for the defective circulation in the legs with gangrene. The thrombus in the left ventricle was red, the type usually responsible for embolism. Parts of a thrombus attached to the heart lining are more easily detached than portions of a large thrombus wholly occluding a vein. Mural thrombosis may develop over a damaged ventricular wall at any time. The character of the changes in the heart, kidney, spleen and at the aortic bifurcation, suggest that the thrombosis within the heart was of recent development. A drop of blood pressure under spinal anesthesia at the time of the herniorrhaphy would favor such a development. The clinical record indicates that this blood pressure was 130/80 on admission. The operative record lists three blood pressure readings: 108/68, 100/60, and 110/?. After the latter reading 1 amp. of ephedrine was given. One may conjecture that his mural thrombosis started then or soon afterwards.

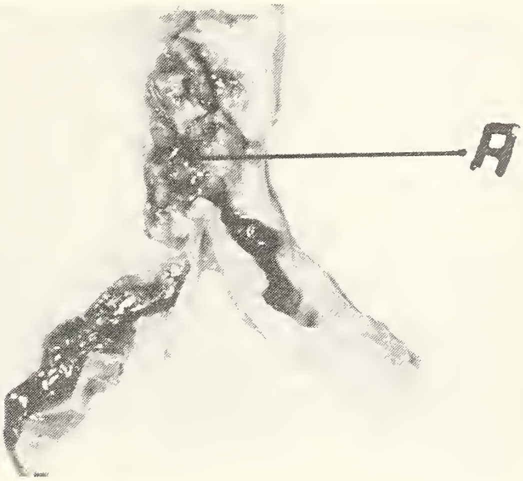

Fig. 2. Thrombus attached to aorta (A) and extending into iliac arteries.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

WOMAN'S AUXILIARY

Mrs. Maurice E. Grier
President Woman's Auxiliary, Nebraska State Medical Association

ACCEPTANCE REMARKS

Members of the Woman's Auxiliary to the Nebraska State Medical Association, and guests:

I hardly know how to express my appreciation for the honor you have conferred upon me by electing me President of the Organization. I will assume my duties cheerfully and discharge them to the best of my ability.

Loyalty, harmony and teamwork should be the Auxiliary's aim. To accomplish much we must have many members and have each member well informed. Every Doctor's wife automatically becomes eligible for membership.

So, as I endeavor to carry on the work of our outgoing President, Mrs. Wegner, I trust that I may have your confidence, sympathy, advice and support that our Auxiliary may grow in strength and members during my term of office.

Again let me thank you for the honor and assure you of my desire to justify the confidence you have placed in me.

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HOSPITAL NEWS

AUBURN: The 16-bed Auburn Hospital, established in 1913 by the late Dr. C. A. Lutgen, has been purchased from the Lutgen estate by Dr. Edgar Cline, who has practiced in that Southeastern Nebraska city for the past 30 years. The purchase includes building and equipment. The institution is a member of the American Hospital Association.

CHAPPELL: To carry out the wishes of their dead sisters, Frank and Fred Miller have donated $40,000 for construction of a Memorial Hospital.

The hospital will be a two-story structure with at least 20 beds. It will be completely modern. Under control of a hospital board appointed by the city council, the hospital will be open to all persons regardless of race, color or creed.

GRAND ISLAND: St. Francis Hospital is completing plans for a new, separate Nurses' Home, upon which construction is expected to begin this summer. Accommodations for 100 students will be provided, in addition to a complete teaching unit and facilities for instructors, spacious parlors, recreation rooms and an auditorium. The space now occupied in the hospital structure by the nurses will be converted for patient rooms, and one floor will be devoted to the treatment of contagious cases.

NORFOLK: Our Lady of Lourdes Hospital, conducted for the past 12 years by the Missionary Benedictine Sisters, will be housed in a completely new plant in 1948 or 1949, Mother Maria Lucas, O.S.B., Prioress, reports. A modern structure of 75 to 100 beds capacity is contemplated.

NORTH PLATTE: Arrangements have been completed with St. Mary's hospital whereby North Platte will have the first cancer clinic in the state outside of Omaha.

Dr. Harold Eggers, field education director, met with the 11th Councilor District of the State Medical Association in North Platte recently and the group voted to institute a tumor clinic in one of this city's hospitals.

Dr. G. F. Waltemath was elected president of the newly organized group and Dr. C. F. Heider, secretary.

NEWS NOTES FROM THE OFFICE OF THE SURGEON GENERAL

GENERAL KIRK OUTLINES HEALTH BENEFITS IN UNIVERSAL TRAINING

Medical and hygienic methods, facilities and services which made the American Army of World War II the healthiest in the Nation's history would be made available to citizens accepted for Universal Training.

Maj. Gen. Norman T. Kirk, Surgeon General, reviewing the scientific advances and gains which have been achieved, includes the following:

1. Thorough application of preventive medicine, giving the soldier, or trainee, maximum protection

against smallpox, typhoid and paratyphoid fevers, lockjaw, influenza and, when necessary other communicable diseases.

2. Periodic physical examinations which frequently uncover unsuspected infections or pathological conditions.

3. Medical and hospital care of a superior type.

4. Rigid sanitation.

"In civilian life," said General Kirk, "it is common practice to neglect minor illnesses or, what is worse, to resort to self-treatment. This is due to the expense and frequently inaccessibility of medical treatment and the disinclination to take time off from work.

"There are no such deterrents in the Army. Furthermore, many of the illnesses that in civilian life are treated in the home result under military conditions in admission to the station hospital where the type of medical and nursing care available is very much better. This tends, in many cases, to reduce the duration of illness and the incidence of complications."

Given particular emphasis by the Surgeon General was the training in hygiene, preventive medicine and sanitation which is given the recruit. This includes personal and sex hygiene; first aid; principles of sanitation, purification of water and abatement of insects; and means of curbing the spread of respiratory infections.

"The situation in the Army," asserted General Kirk, "is unique in the action which can be taken in the various fields of safeguarding health. There is no other comparable situation where entire groups of men can receive thorough training and indoctrination in the principles of health protection. It must be remembered that not only are these teachings of importance to the Army while the soldier is in service, but later in the civilian community he represents a distinct contribution toward the better understanding of health maintenance."

Of significance is the fact that tuberculosis, meningitis, venereal disease, respiratory infections, pneumonia, scarlet fever, mumps and measles were markedly less prevalent among American troops in World War II than was the case in 1917-18.

During the post-war period, up to the end of Selective Service, one-third of white registrants and nearly two-thirds of Negro registrants were rejected for physical and mental reasons. Out of every 1,000 inductees, 815 had one or more non-disqualifying physical defects—certain cases of hernia, uncomplicated venereal disease, dental and visual defects, etc.

"Tersely stated, these data are a searching indictment of the aptitude of American youth for military service, despite the heroic and gallant performance in the World Wars of great numbers of these selected for military service," said The Surgeon General.

"It is not contended that Universal Training will correct this condition, or, indeed, that from the medical point of view our aim should go beyond an effort to improve the general health of trainees.

"However, under a system of Universal Training, the Army can contract to receive the trainees, to improve within practical limits their physical and mental fitness, to provide them with excellent medical, dental and surgical care and to guard their environment so as to control as effectively as possible common hazards to their health.

"The benefits of such a program will accrue not only to these young men themselves but also, inevitably, to a certain degree, to their families, communities and to the entire country."

SALIENT POINTS IN REPORT OF ATOMIC BOMB CASUALTY COMMISSION

A number of interesting facts relating to the Japanese who survived at Hiroshima and Nagasaki were disclosed in the report of the Atomic Bomb Casualty Commission released by the War Department at a recent press conference held in the Office of the Surgeon General.

The report carries no spectacular data or stories on freakism or physical anomalies among babies born to persons who were exposed to the bomb. It does not deal in the sensational. Based upon a study which was relatively short—about six weeks—the report simply gives a direct, unpretentious picture of work which is under way to evaluate the results upon human beings of a massive dosage of radiation, in combination with the heat and concussion generated by nuclear fission.

The commission, whose task is completed with presentation of the report, was composed of two civilian physicians, two Army medical officers and one Navy medical officer. They are Drs. Austin M. Brues and Paul S. Henshaw, Lieuts. Melvin A. Block and James V. Neel (MC) U. S. Army, and Lieut. (j.g.) Frederick W. Ullrich (MC) USNR. Dr. Brues, who is an outstanding authority on biology of radioactive material, is the Associate Professor of Medicine at the University of Chicago and Director of Biology Division, Argonne National Laboratory, Chicago, Illinois.

Following are some highlights of the commission's report, which was reviewed and cleared by the Atomic Energy Commission prior to issuance:

"Members of the commission have been impressed during their observations of atomic bomb survivors by the fact that many of the burns have healed with accumulations of large amounts of elevated scar tissue, the so-called keloids," said the report.

"The striking feature noted is the large number of burns that have healed with excessive quantities of scar tissue, having a relatively flat surface elevated above that of surrounding skin. Margins of these lesions are sharply defined. The area involved varies very much, some being as small as one centimeter in diameter while others may involve most of the face or the back. The maximum growth of such tissue evidently was reached about eight to ten months following the injury . . . These are the so-called keloids."

"The assay of possible genetic effects is much more readily performed in plant and animal material than in man with, however, the important qualification that in man and, to a lesser extent, plant material, it is often impossible to be certain of position at the time of the bombing," says the report. "The Japanese efforts to utilize animal material have been completely nullified by the chaotic conditions and poor food situation."

During the months of October and November, 1945, a study was conducted on 124 male inhabitants of Hiroshima. Examinations disclosed that, in 43 cases, the number of spermatocytes in the ejaculated sperm was less than 5,000 per cubic millimeter, or "absolutely sterile," in the words of Prof. Tsuzuki. Ten other cases were "relatively sterile" and the remaining 71 were normal.

"A reformation of the spermatocytes occurs in one month, so the recovery of damage to spermatocyte formation will be delayed more than that of the damage of white blood cells. The shorter the distance, the more severe was the damage. The damaging influence on the number of spermatocytes was observed in the area within a radius of three kilometers (about two miles) from the ground center. Within a radius of 2.5 kilometers there appeared some sterile cases. Within a radius of 1.5 kilometers one-half of the cases showed sterility.

Women who were in an early stage of pregnancy "have taken a normal course since the bombing," said Dr. Tsuzuki.

"It is already experimentally proved both in botany and zoology that there is a possibility of producing a malformation of descendants when the sexual cells are affected in some degree by radioactive energy. The question, if this fact is applicable to the human beings or not, will be made clear by further observations.

"We have already clear evidence that the human sexual cells are also affected by the atomic bomb injuries. There is a possibility of malformation of the descendants, if the sexual cells should be affected selectively, without any severe damage to the other organs or tissues.

"In the survey of spermatocytes, it was noticed that they decreased not only in their number but they showed also some structural abnormalities. This problem must be, therefore, taken up and carefully followed further."

Heretofore, conflicting figures have been presented on the number and character of casualties at Hiroshima and Nagasaki. Dr. Tsuzuki quotes the Hiroshima prefecture as estimating, 19 days after the explosion, the dead at 46,185; the missing at 17,429; the severely injured at 19,691; slightly injured, 44,979, and other sufferers at 235,656. Six months after the catastrophe, the toll of dead and missing stood at 92,133, excluding the military dead. The total number of Hiroshima dead may be set at 100,000, according to the Japanese professor. The Nagasaki prefecture set that city's toll at 23,753 dead, 1,924 missing, 23,345 wounded and 89,025 other sufferers.

"Comparing the death rates of males and females, we find they are almost equal outside a radius of 1.5 kilometers from the ground center, but the rate of females within a radius of 1 kilometer seems to be lower than that of males. While we were staying at Hiroshima, we often heard that under the same conditions, men died more quickly, women were more resistant. We could not believe such a story at that time.

"But the statistics showed a result that in the central area, the female mortality seemed to be a little lower than the male. The reason for this fact is, of course, unknown. The central area, within a radius of 1 kilometer, was the place in which a tremendous number of neutrons reacted. We may be allowed to imagine that a difference of distribution of the atomic energies would cause the difference in the death rates between males and females."

The Atomic Bomb Casualty Commission report says:

"The commission's view that much valuable information can be obtained from a long-term study of atomic bomb casualties has been strengthened . . . From previous irradiation experiences with both animals and human beings, there is good reason to believe that reproductive disturbances, malignancies of one form or another, shortened life span, altered genetic pattern, etc., will in time appear in greater or lesser degrees.

"The problem is one of detecting the changes and recording the events as they occur. It is the view of the commission, furthermore, that with the possible exception of genetic recessives (physical monstrosities which might not crop out for several generations), the various changes can be successfuly detected and recorded. This presupposes, of course, the proper cooperation with the Japanese and a reasonable expenditure of funds."

COUNCIL ON MEDICAL SERVICE, A.M.A.

BULLETIN NO. 9

BILLS INTRODUCED SINCE OUR LAST BULLETIN

S. 1130 by Mr. Taft of Ohio (for himself and Mr. Smith of New Jersey), April 18. A Bill to create a National Cancer Research Commission in order to provide for and coordinate research in a supreme endeavor to discover the cause or causes of cancer and means for its prevention; to develop a limited number of research centers; to mobilize in the United States a number of the world's outstanding experts in scientific research in order to utilize their services; and for other purposes. Referred to the Committee on Labor and Public Welfare.

Comment: Creates a fifteen-man commission composed of ten eminent scientists, expert in the field of medicine or the basic sciences, and five laymen appointed by the President to serve for a term of five years. The commission shall choose one of its members every three years to act as chairman. The commission shall formulate a program to provide for and to coordinate scientific research directed toward the discovery of the cause of cancer and means for its prevention. The commission is authorized (1) to make grants for not more than ten public or private research centers in the United States (one of which shall be the National Cancer Institute at Bethesda, Maryland, and others shall be connected with a university medical school; (2) to award fellowships for research at institutions in the United States designated by the commission; (3) to make grants for individual research projects at from one to five years in duration at institutions in the United States designated by the commission; (4) to collect information for publication on studies being carried on in the United States and other countries relating to cancer research, and to promote coordination of researches.

Nothing in the Act is to be construed as authorizing the establishment of any federally-owned or operated research facility other than the National Cancer Institute, and nothing in the Act shall be construed as limiting or curtailing the powers, authorities, or duties of the National Cancer Institute. Authority is given the commission to appoint a national administrator of cancer research for a term of four years at an annual salary of $15,000. An appropration of $75,000,000 is authorized for the next five years or until expended.

S. 1131 by Mr. Pepper of Florida (for Mr. Murray of Montana and himself), April 18. A Bill to aid the States in establishing and maintaining scholarship and loan programs for the purpose of enabling individuals to obtain education in the eleventh year of school grade or above. Referred to the Committee on Labor and Public Welfare.

Comment: The bill authorizes the appropriation of a sizeable sum to be apportioned among the several states, one portion of which shall be used by the states to award scholarships to persons of ability for their education in the eleventh school year and above; a second portion shall be in the form of a revolving fund from which loans may be made without security to needy persons of ability at three per cent interest. "At least twenty per cent, if expended, shall be expended for scholarships to students who are enrolled or eligible to enroll above the sixteenth year of school grade in graduate or professional schools, or departments of colleges, universities and research institutions in the United States or other countries."

S. 1143 by Mr. Gurney of South Dakota, April 22. A Bill to provide for the procurement of physicians and surgeons in the Medical Department of the Army, and for other purposes. Referred to the Committee on Armed Services.

Comment: (1) Pay of physicians and Surgeons: Commissioned officers of the Medical Corps with less than 30 years' active Federal Commissioned service shall have their active duty base and longevity pay increased by $1,200 per year.

(2) Medical Corps Specialists: Qualified commissioned officers of the Medical Corps of the Regular Army, general officers appointed from the Medical Corps of the Regular Army, and professors of the Medical Department of the Army may be designated as specialists if they are recognized by the Advisory Board for Medical Specialists and by the Surgeon General of the Army. Commissioned Medical Corps officers of the Army, other than those of the Regular Army, may also be designated.

(3) Four Professorships: There are to be established in the Medical Department of the Regular Army four professorships in medicine, surgery, neuropsychiatry, and preventive medicine. Persons are to be appointed by the President and will serve at schools, medical centers, teaching hospitals and other Medical Department installations and as consultants to the Surgeon General.

(4) Original Appointment of Medical Corps Specialists: The President is authorized to appoint and commission in the Medical Corps of the Regular Army physicians and surgeons who have been certified as specialists by an American Specialty Board recognized by the Advisory Board for Medical Specialists and by the Surgeon General of the Army.

(5) Employment of Civilian Physicians: The Secretary of War is authorized to employ without regard to civil-service requirements civilian physicians to serve with the Medical Department of the Army on a salary grade similar to what now prevails in the Veterans Administration.

H. J. Res. 167 by Mr. Gavin of Pennsylvania, April 14. Joint Resolution to recognize uncompensated services rendered the Nation under the Selective Training and Service Act of 1940, as amended, and for other purposes. Referred to the Committee on Armed Services.

Comment: "Suitable certificates of separation are to be issued by the director of Selective Service to uncompensated personnel of the Selective Service system upon the expiration of the Selective Training and Service Act of 1940, as amended."

H. R. 2719 by Mr. Read of Illinois, March 21. A Bill to amend the Longshoremen's and Harbor Workers' Compensation Act. Referred to the Committee on the Judiciary.

Comment: The following several amendments would be added to the Act: (1) Injured employee may select any physician from those authorized by the commission to render medical care. Provision is also made by which he may transfer his treatment and care to another authorized physician. (2) Employers are required to post in a conspicuous place notices informing the employees of their privilege under this Act. (3) Under certain conditions the employer shall have the right to transfer the care of an injured employee from the attending physician to another authorized physician. (4) The employer is given the right to have the claimant examined by a qualified physician in the presence of the claimant's physician.

The commission shall establish such panels of qualified physicians, surgeons, specialists, consultants, laboratory, x-ray or other technicians, compensation medical bureaus and laboratories as may be necessary for the carrying into effect of the provisions of this section, and shall also establish schedules of fees to be charged for their services.

H. R. 2850 by Mr. Keating of New York, March 28. A Bill to provide for additional tax reductions from the gross income, and for other purposes. Referred to the Committee on Ways and Means.

Comment: The proposed amendment increases, on a graduated scale, the allowable deductions for medical and dental expenses. The following new section is added to the Code: "All necessary expenses incurred by a professional person in taking required instructions in connection with his work."

H. R. 2911 by Mr. Leonard Hall of New York, April 1. A Bill to amend the Railroad Retirement Act of 1937, the Railroad Unemployment Insurance Act and subchapter B of chapter 9 of the Internal Revenue Code, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Identical with S. 994 (Reported in Bulletin No. 8).

H. R. 3059 by Mr. Klein of New York, April 15. A Bill to authorize and request the President to undertake to mobilize at some convenient place or places in the United States an adequate number of the World's outstanding experts and coordinate and utilize their services in a supreme endeavor to discover new means of treating, curing, and preventing diseases of the heart and arteries. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Identical with S. 720 (Reported in Bulletin No. 6).

The Joint Committee for the Coordination of Medical Activities of the American Medical Association met at headquarters on April 26. It is an advisory committee composed of representatives from the Advisory Board for Medical Specialties, American Dental Association, American Hospital Association, American Red Cross, Association of American Medical Colleges, Catholic Hospital Association, American Colleges of Physicians and Surgeons, Federation of State Medical Boards, Federal Security Agency, U. S. Army, Navy and Public Health Service, the Veterans Administration and American Medical Association.

The Joint Committee expressed concern that the growing tendency to exclude the general practitioner from hospital staff privileges is having the effect of making it impossible for the general practitioner to obtain the advantages of modern hospital facilities for treatment of his patients. The Joint Committee therefore recommended that a long range program be formulated on the part of all professional bodies concerned. The immediate need, the Committee felt, was the integration of general practitioners into the hospital staffs throughout the country. To accomplish this the Committee recommended that the Council on Medical Education and Hospitals of A.M.A. develop, as soon as possible, several alternate plans. The Committee further recommended that the American Medical Association and other professional organizations, as well as the hospital associations in their regional and annual meetings and in their publications, give prominent place to a discussion of how this hospital staff integration can best be accomplished in order to make available for each eligible physician and his patients all the facilities provided in the community for medical care.

Our House of Delegates in December, 1946, passed a resolution to the effect that all hospitals should be encouraged to establish general practitioner services, stating that appointment to a general practice section shall be made by the hospital authorities on the merits and training of the physician. Copy of this resolution has been sent to all hospitals in the country by our Council on Medical Education and Hospitals. Further, complying with House of Delegates directive of December, 1946, the Section on General Practice of Medicine has given serious consideration to the plan for the formation of a certifying board, and such a plan will be proposed to the Section in June. The Joint Committee does not believe that the setting up of a certifying board for general practice will meet the need at this time. The plan for formation of a certifying board will be reviewed by the Council on Medical Education and Hospitals prior to the Atlantic City Session.

STATE DEPARTMENT OF HEALTH NEWS NOTES

Health education in Nebraska is starting on a three-year expanded program. The sponsors are the State Department of Health, the State Department of Public Instruction and the State Assistance Department, in cooperation with the universities and teachers colleges in the state. Under the expanded plan there will be a qualified health educator and a nutrition specialist at each center, who will both teach and supervise activities in health education and nutrition in the areas adjacent to the universities and teachers colleges.

State consultant services will be available at all times in the development of the program.

Nina B. Lamkin, Director of Health Education, is on leave of absence. She is spending nine weeks at the University of Louisiana as associate director in the Health and Physical Education Workshop. Her work will be to have charge of the health education phase of the workshop program and to develop, with the teachers, curriculum materials for use in the schools of Louisiana. Miss Lamkin will return in August.

Dr. D. M. Alderson, who resigned as Director of the Hospital Survey to return to Military Service, has been assigned as Post and Port Surgeon of Fort Buchanan in San Juan, Puerto Rico.

RESUME OF EXTRAMURAL CIRCUIT POSTGRADUATE COURSE, MARCH 24 TO APRIL 4, 1947

During this spring period there was an attempt made to re-establish continued circuit activities in Pediatric and Obstetrics which had to be largely discontinued during the war period. One such circuit was conducted in September, 1945, and prior to that April, 1942, was the last period such activities were possible in Nebraska.

John L. Gedgoud, M.D., Associate Professor of the Pediatric Department, University of Nebraska, College of Medicine, gave lectures on the "Diarrheas in Infancy (Particularly the Newborn)."

There was a very excellent interest among the members of the Medical Societies who attended, and frequently other subjects for discussions came up in the afternoons or during evening sessions. Some of the additional topics discussed were "Rheumatic Diseases in Childhood," "Skin Diseases of the Newborn Infant," and "Feeding Disturbances in the Newborn Infant."

William E. Rapp, M.D., Medical Consultant and Instructor in Obstetrics and Gynecology, University of Nebraska, College of Medicine, presented the subject of "Chief Causes of Maternal Death in Nebraska and Why." The presentation was an attempt to inform the medical profession as to ways and means that some of the accidents of maternity could be prevented, thereby, resulting in reduced maternal deaths and illnesses resulting from the maternity experience.

The ten areas where the courses were presented are as follows: 12th Councilor District of the Nebraska State Medical Association, Chadron, Alliance, Scottsbluff, and Sidney; 11th Councilor District, Ogallala and North Platte; 10th Councilor District, McCook, Holdrege, and Hastings; 9th Councilor District, Kearney.

Individual case consultations and some afternoon clinic case consultations services were rendered by the visiting consultants or the local medical societies and physicians.

A total of 134 medical men and five other professional persons registered at the ten lecture points.

It is contemplated that similar circuit activities will be developed by the Maternal and Child Health Department, State Department of Health, in cooperation with the Maternal and Child Health Committee of the Nebraska State Medical Association and the University of Nebraska College of Medicine, for local County Medical Societies.

Accompanying the College of Medicine staff in presenting the courses was Dr. Violet Wilder, Bio-Chemist and Director of the Special Medical laboratory, University of Nebraska, College of Medicine, for the purpose of reviewing hospital laboratory procedures as they now exist in the state. Also, accompanying the staff was Miss Helen Leiser, Public Health Consultant in Maternity and Pediatric nursing, who was reviewing the Maternity and Pediatric services as they now exist in the institutions rendering maternity and infant hospital service.

The Division of Maternal and Child Health, State Department of Health, is responsible for the inspection and licensing of Maternity Homes and the Lying-In portions of general hospitals in the State of Nebraska.

It is the desire of the Department to render every

EXTRAMURAL POSTGRADUATE CIRCUIT SUMMARY

		P. M.											
		Clinic Cases		Consultant Cases		Attendance Clinics			Evening Lectures			Total	Actual
Date	Place	OB	PED	OB	PED	M.D.	Nurse	Other	M.D.	Nurse	Other	Attend.	Register
3/24/47	Chadron	0	0	2	3	0	0	0	10	1	0	--	10
3/25/47	Alliance	0	0	4	3	0	0	0	9	0	0	--	9
3/26/47	Scottsbluff	0	0	0	2	0	0	0	10	0	2†	--	12
3/27/47	Sidney	0	0	1	2	0	0	0	8	0	0	--	8
3/28/47	Ogallala	0	4	0	2*	3	0	0	10	0	0	--	10
3/31/47	North Platte	0	1	0	2	11	0	0	19	0	0	--	19
4/ 1/47	McCook	0	7	0	2	2	0	0	17	0	3‡	--	21
4/ 2/47	Holdrege	0	0	1	4	0	0	0	10	0	0	--	10
4/ 3/47	Hastings	0	0	0	2	0	0	0	17	0	0	--	15
4/ 4/47	Kearney	1	2	0	0	15	0	0	25	0	0	--	25
		1	14	7	22	31	--	--	135	1	5	--	139

* One case, Oshkosh, Nebr. † Lab. man, hospital supt. ‡ Dentist

helpful suggestion possible to improve Maternity and Infant hospital services rendered the patients in the hospital areas of each institution. It is proposed that a continuation of consultation services in the medical maternity nursing and laboratory fields may continue, and thus provide a common ground for exchange of ideas which will provide continued improvement in the varied services rendered to patients.

—R. H. LODER, M.D., Director,
Division of Maternal and Child Health,
Nebraska State Department of Health.

THE MEDICAL LIBRARY

A well equipped medical library is today one of the essentials for medical education and medical research. For the past several years, medical educators have placed more and more emphasis upon collateral reading and upon the preparation of papers and reports to supplement lectures and laboratory exercises. The research worker in medicine has likewise come to place great dependence upon the library, for there is where he learns what has been done and what is being done in his particular field of interest. The library is important to the practicing physician, also. The science of medicine has progressed very rapidly during the past few decades, with one achievement crowding upon another in a steady stream. Reports of these discoveries and developments appear first of all in periodicals. As a consequence, the periodical literature of medicine has become voluminous, and the related biological and physical sciences are becoming increasingly more important to the physician. Only in a library will he find the number and variety of periodicals to keep himself well informed about the latest discoveries, about the contributions of the related sciences to medicine, and about the latest and most effective modes of treatment.

One might ask: What constitutes a well equipped medical library? It may be said to be one which contains the important books, monographs, and periodicals, a well lighted reading room, accessible book stacks, the necessary reference works, a public catalog, and indexes to the medical literature.

To serve its patrons most efficiently, the library's books and monographs are arranged or classified by subject and shelved according to the call number, so that they are easily available. They are classified according to one of the various schemes, such as Dewey Decimal, Library of Congress, or Cunningham, which outline the field of medicine in a logical progression from subject to subject. The bound periodicals are usually shelved separately and are arranged alphabetically by title. Current issues are usually shelved in special racks in the reading room.

Among the reference works which a library should provide are general and medical dictionaries and encyclopedias, directories, atlases, almanacs, and the loose-leaf systems, such as Tice's Practice of Medicine and Lewis' Practice of Surgery.

The public catalog provides the key to the library's holdings. It is usually a file of cards, with cards for the authors, cards for the subjects, and cards for the titles, all arranged in one alphabet. Some libraries, however, prefer two catalogs, one containing cards for authors and titles and one containing cards for subjects, each catalog arranged alphabetically. Every card contains the necessary bibliographic information about the book it represents, plus the call number. The call number, which appears in the upper left hand corner of the card, is simply a scheme of notation applied to the books so that all books on the same subject can be shelved together in the stacks.

Indexes to the periodical literature are another important part of a library's equipment. Without indexes, anything approaching a thorough review of the periodical literature on any subject would be well nigh impossible. With the use of indexes, on the other hand, the important periodical literature of past and present is disclosed to the searcher. The principal indexes to medical literature are the Index-Catalogue of the Library of the Surgeon General's Office, U. S. Army (Army Medical Library); the Index Medicus; the Quarterly Cumulative Index to Current Medical Literature; the Quarterly Cumulative Index Medicus; and the Current List of Medical Literature. These indexes will be described in some detail in the next issue of the Journal.

—PHILIP S. MOE, Librarian,
University of Nebraska
College of Medicine, Omaha.

NEBRASKA MEDICAL SERVICE

The voluntary prepayment medical care plans, sponsored by the State and County Medical Societies, were all organized and developed in good times, at the top of the curve of the economic cycle.

When will be the next depression arrive?

Probably sooner than we think.

The prepayment medical care plans will soon face: "Trial by Depression." Unemployment, loss of membership and increased utilization. These will make great demands on our reserves or surplus.

What can we do to make our plans strong enough to carry through a long, hard depression. We have the answer to that in the minds and in the hearts of the members of this Association.

In the language of the insurance expert there are two kinds of surplus: 1. Invested surplus represented by Government bonds and other securities. 2. Operating surplus, represented by the willingness of the members of the Nebraska State Medical Association to accept the "pro rata" agreement.

The pro rata agreement simply stated means this:

If during any accounting period the income of the plan is less than the expense of the plan, the participating physician would agree to accept a pro rata reduction in the schedule of benefits for services rendered. For example: If in the first quarter of 1951, we are in a period of depression. Our income is $90,000.00 and our expenses are $100,000.00, that would mean a pro rata reduction of 10% and the benefit for an appendectomy would be $90.00 instead of $100.00. A $90.00 fee would be a good benefit for an appendectomy in a time of depression.

I quote from an article entitled: "Seven fundamental requirements of insurance applied to voluntary prepayment medical care plans," written by Dr. Frank G. Dickinson, Director of the Bureau of Medical Economic Research of the A.M.A. and published in the Journal of the A.M.A., February 15, 1947.

"It is not enough that the plan has completed one year, or five years, with a reserve fund on hand. It must be strong enough to weather a great depression during which the loss and expense ratios might rise rapidly even though the general health situation was favorable. Reserve funds developed in prosperous times will doubtless be needed to off set unpredictable increases in loss and expense ratios during depressions. For this reason the "Pro Rata" feature is excellent; it provides that the participating physician must accept less than their approved fees if the income of the plan for the year is less than the amount of the total approved fees. This transfer of some of the risk, especially in a year of depression, from the plan to the participating physicians makes them underwriters and should make their plan a tower of strength during periods of unemployment. This feature would enable any plan to comply fully with this seventh essential requirement of insurance, because, even though certain health risks may not be measurable or predictable, the plan is secure. Premiums need not be equal each year to the total approved fees of the participating physicians for services rendered members during that year. The physician is, in the language of the insurance world, a reinsurance underwriter.

Without this feature a plan might be a house of cards instead of a tower of strength at the bottom of the business cycle.

Although the "Pro Rata" feature may be hard on the doctor, it makes the plan stronger than it would be if it merely complied with the seven fundamental requirements of insurance. The stronger the plan, the better it is for the doctor."

Nebraska Medical Service was organized primarily to provide health security to the members of the low income group. It should be our project this year to develop a socially minded medical profession. If this can be accomplished, we should be able to obtain the voluntary cooperation of the members of the medical profession, and to have them accept the payments, stipulated in the schedule of benefits of Nebraska Medical Service, as payment in full for services rendered to the members of the low income group. At the same time, continue the indemnity plan for those in the higher income bracket.

The Service plan is the method under which the participating physicians have agreed to accept the corporation's schedule of benefits as payment in full for the services provided. Service benefits are generally restricted to the enrollees in the lower income bracket. These income limits are based on gross income and the number of the dependents.

It is generally accepted today that a single person, who earns $35.00 a week, or $1,800.00 per year and a family whose weekly income is $50.00 and the annual income $2,600.00, are in the low income group.

A participant, whose income is in excess of the stipulated limit, may be charged an additional amount by the physician.

Inasmuch as Nebraska Medical Service is now in practice, working on a service basis, it would be a tremendous advantage in the enrollment of these low income groups, if our representatives could assure the members of the low income groups, that the schedule of indemnities would be accepted by the members of this Association as payment in full for services rendered. It would give them the security which they so earnestly desire.

The recent meeting of the House of Delegates of the Nebraska State Medical Association, held in Omaha, April 29, 1947, to May 1, 1947, adopted the following resolutions unanimously:

1. That the "Pro Rata" feature be adopted by the Nebraska Medical Service, to preserve the financial stability of the Plan in the event of a long, hard depression.

2. That the Nebraska Medical Service adopt the "Service Plan" for the low income group and retain the indemnity plan for the over income groups.

The Omaha Douglas County Medical Society affirms these resolutions and urges its entire membership to sign up as Participating Physicians in the Nebraska Medical Service.

I move the adoption of this report and publication of same in the Bulletin.

—ARTHUR J. OFERMAN, M.D.,
Chairman,
Committee on Medical Service.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE CASH RECEIPTS AND DISBURSEMENTS

April 30, 1947

Cash on hand April 1, 1947		$55,287.95
Receipts:		
From dues	$20,108.75	
From enrollment fees	784.00	
Taxes deducted from salaries	66.10	20,958.85
		$76,246.80
Disbursements:		
Claims paid	$12,456.40	
Administrative expense	3,426.12	
Salary, Executive Director	350.00	
Secretary's fee	225.00	
Medical Adviser	50.00	
Attorney	150.00	
Audit expense	300.00	
Advertising	343.28	
Printing and stationery	424.11	
Hospital records	6.00	
Home office travel and expense	108.91	
Collection expense	6.61	
Refunds	167.38	
Exchange (bank charge)	4.00	
Taxes paid	86.40	
Postage	7.11	
Dues	14.52	18,125.84
Cash on hand, April 30, 1947		$58,120.96
Bank Balances, April 30, 1947:		
Packers National Bank, Omaha		$56,987.60
First National Bank, Omaha		1,133.36
		$58,120.96

NEBRASKA MEDICAL SERVICE BALANCE SHEET

April 30, 1947

Assets:			
Cash in banks		$58,120.96	
Premiums in process of collection		5,383.06	
U. S. Bonds (cost plus accrued interest)		25,151.05	
Associated Hospital Service, administration expense refund account		1,467.56	90,122.63
Liabilities:			
Accounts payable, Blue Cross		$ 3,438.67	
Accounts payable, monthly invoices		1,071.56	
Accrued payroll taxes		69.60	
Claims payable		5,850.00	
Accrued audit expense		100.00	
Unearned premiums		26,100.28	
		$36,630.11	
Reserve for Public Relations Campaign		$ 1,000.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	33,042.52		
		52,492.52	
			$90,122.63

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSE

April 30, 1947

	Month of April	4 Months to Date
Income:		
From dues	$18,319.73	$67,763.88
From enrollment fees	784.00	2,944.00
	$19,103.73	$70,707.88
Expenses:		
Claims	$14,606.40	$47,798.00
Administrative expense	1,971.11	11,118.26
Salary, Executive Director	350.00	800.00
Secretary's fee	225.00	300.00
Medical Adviser	50.00	200.00
Legal	150.00	300.00
Auditing	100.00	400.00
Advertising	880.17	1,638.60
Stationery	5.55	10.05
Printing	179.39	1,325.81
Home office travel and expense	108.91	429.36
Dues	14.52	39.81
Postage	7.11	51.21
Taxes and licenses	33.50	38.00
Collection expense	6.61	28.35
Miscellaneous	16.00	36.50
	$18,704.27	$64,513.95
Net Gain	$ 399.46	$ 6,193.93

MEMBERSHIP SUMMARY—APRIL, 1947

		Subscribers	Dependents	Total
1.	Membership, April 1, 1947	10,912	15,422	26,334
	Additions	723	932	1,655
	Cancellations	199	204	403
	Membership, May 1, 1947	11,436	16,150	27,586
2.	Number of groups now enrolled			698
3.	Number of groups added during April			48

APRIL ENROLLMENT BY COMMUNITIES

OMAHA—19 groups, 315 members: Acme Sand & Gravel Company; Canadian Pacific Soo-Line Rys.; Charlie's Blue Room; Continental Grain Company; Crowell-Collier Readers Service; Davidson's Furniture Company; Dresher Brothers Laundry; Frankel Distributing Company; G. & G. Mfg. Company; Medical Arts Bldg. Group; Mercia's Barber & Beauty Shop; Nebraska Inspection Bureau; The Pullman Company; Randall's Cash Store; Rocket Air Service; School District No. 5; Sparetime Cafe; Union Rubber Works.

GERING—2 groups, 24 members: Gering Hotel; Union Pacific.

FREMONT—2 groups, 34 members: Brunner Drug Company; Dodge County Community Hospital.

MINDEN—1 group, 3 members: Dr. Charles Abbott Office.

COZAD—1 group, 5 members: W. J. O'Connor Store.

COLUMBUS—1 group, 7 members: Columbus Auto Supply.

LINCOLN—7 groups, 119 members: Adjutant General Office; Dierks-Drumm Lumber Company; Kent Oil Company; Lincoln Community Chest; Nehi Bottling Company; J. L. Roscow Sign Company; Steckley Hybrid Corn Company.

NORTH PLATTE—6 groups, 76 members: Chamber of Commerce; Dixon Optical Company; Miles Cleaners; North Platte Plumbing & Heating Co.; North Platte Rendering Co.; Swift & Company.

BROKEN BOW—3 groups, 37 members: Stanford Motor Company; Talbot Motor Company; Western Motor Company.

SCOTTSBLUFF—2 groups, 21 members: LeBlanc's Sales & Service Co.; Platte Valley Telephone Co.

KEARNEY—2 groups, 18 members: Schultz Hardware Company; Swift & Company.

YORK—1 group, 7 memers: York Blank Book Company.

NORFOLK—1 group, 6 members: Madison Co. Public Welfare Dept.

HASTINGS—13 members.

SIDNEY—10 members.

VALENTINE—3 members.

AURORA—5 members.

WEST POINT—3 members.

BEATRICE—2 members.

GRAND ISLAND—6 members.

ALLIANCE—5 members.

LEWELLEN—3 members.

SCRIBNER—1 member.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

April, 1947

Number of claims paid		273
Number of services rendered		305
Females		161
Males		112
Subscribers		101
Dependents		172
Type of Service	Number	Amt. Paid
Anesthesia	6	$ 70.00
Appendectomies	29	2,900.00
Eye	6	185.00
Gall Bladders	4	600.00
General Surgery	18	1,090.00
Gynecology	15	1,205.00
Hemorrhoids	9	360.00
Herniotomies	5	485.00
Minor Surgery	25	265.00
Nose and Throat	11	335.00
Obstetrics	19	885.00
Orthopedics	25	893.00
Pathology	3	15.00
Radiation Therapy	5	165.00
Tonsillectomies	64	2,240.00
Transfusions	4	40.00
Urology	2	135.00
X-rays	40	376.00
Medical	15	300.00
	305	$12,544.00

Amount of claims in process of settlement, $5,850.00

Registration, Nebraska State Medical Association Annual Assembly, April 28, 29, 30, and May 1, 1947

PHYSICIANS

Abbott, Chas., E., Minden
Adams, Payson, Omaha
Alcorn, F. A., Lincoln
Alder, Verne H., Omaha
Allen, John F., Omaha
Anderson, A. B., Pawnee City
Anderson, Alfred C., Omaha
Anderson, A. W., West Point
Anderson, C. L., Stromsburg
Anderson, Harley E., Omaha
Anderson, M. C., Omaha
Anderson, Leo, Omaha
Anderson, R. C., Columbus
Andrews, Clayton, Lincoln
Andrews, H. S., Minden
Armbrust, Walter, Omaha
Arnold, M. O., St. Paul
Arnsten, L. L., Omaha
Arrasmith, W. J., Gr. Island
Ashby, A. A., Fairmont
Baehr, B. H., Ashland
Bancroft, B. R., Kearney
Bantin, E. W., Omaha
Barkey, V. S., Lincoln
Barry, A. C., Norfolk
Barry, M. W., Omaha
Barta, Frank R., Omaha
Batty, John L., Lexington
Becker, W. C., Lincoln
Bell, H. O., York
Bennett, A. E., Omaha
Benson, Harry W., Oakland
Benthack, Walter, Wayne
Benthack, Robert B., Wayne
Best, R. Russell, Omaha
Bisgard, J. Dewey, Omaha
Bixby, J., Geneva
Blackstone, H. A., Scottsbluff
Blattspieler, A. C., Tobias
Block, Max, Omaha
Blum, Henry, Lincoln
Boler, T. D., Omaha
Bonniwell, Chas. M., Omaha
Borghoff, J. J., Omaha
Bradley, James D., Omaha
Brady, R. R., Ainsworth
Brazer, John G., Omaha
Brewster, Wayne, Holdrege
Brillhart, E. G., Columbus
Brinkman, H. H., Omaha
Brott, C. R., Beatrice
Brown, Alfred T., Omaha
Broz, John S., Alliance
Brush, E. L., Norfolk
Bryson, R. D., Callaway
Buchanan, A. E., Fremont
Buchanan, Rea, Beatrice
Buhl, C. E., Pender
Burbridge, Glen E., Nebr. City
Burdick, D. E., David City
Bushman, L. E., Omaha
Callaghan, A. J., North Platte
Camel, Louise M., Omaha
Cameron, O. J., Omaha
Campbell, Allan, Lincoln
Carey, Baline P., Talmage
Carrig, M. H., Bloomfield
Carroll, R. P., Laurel
Carveth, W. W., Lincoln
Charlton, G. E., Norfolk
Charlton, G. Paul, Hastings
Christensen, J. B., Omaha
Clark, Geo. L., Omaha
Clarke, Floyd, Omaha
Clarke, Harvey L., Jr., No. Platte
Cline, Edgar, Auburn
Cloyd, A. D., Sr., Omaha
Coe, C. M., Wayne
Conlin, Frank, Omaha
Connolly, Earl A., Omaha
Cornish, James A., Norfolk
Courtney, J. E., Omaha
Covey, Geo. W., Lincoln
Crofoot, Michael, Omaha
Curry, John R., Lincoln
Curtis, E. E., Neligh
Dalton, Kenneth, Genoa
Davis, Edwin, Omaha
Davis, H. H., Omaha
Davis, Homer, Genoa
Davis, J. A., Omaha
Davis, J. Calvin, Omaha
Davis, J. E., Albion
Day, Robert F., Omaha
Day, Robert J., Imperial
Dean, G. W., So. Sioux City
Decker, Rudolph F., Byron
DeLanney, L. A., Omaha
DeLong, Henry, Omaha
Dendinger, W. M., Omaha
Devers, W. I., Pierce
Dickinson, L. E., Jr., McCook
Dieter, L. D., Otoe
DiStefano, C., Omaha
Donelan, James P., Omaha
Dorsey, F. P., Jr., Hartington
Dow, Andrew G., Omaha
Dowell, D. A., Omaha
Dunn, F. L., Omaha
Ekart, Paul, Omaha
Eklund, H. S., Osceola
Elias, H. F., Beatrice
Elston, H. R., Omaha
Evans, Edward B., Omaha
Ewing, Ben E., Nebr. City
Farner, B. R., Norfolk
Farnsworth, E. E., Gr. Island
Farrell, C. H., Omaha
Fellman, A. C., Omaha
Fetter, E. W., No. Platte
Finkle, B. A., Lincoln
Finlayson, Alister I., Omaha
Findley, David, Omaha
Findley, Palmer, Omaha
Fleishman, Max, Omaha
Foster, Miles E., Omaha
Francis, M. B., Bellevue
Frandsen, Chas., Omaha
Freed, Albert E., Omaha
Freymann, J. J., Omaha
Friesen, H. F., Yutan
Foley, Robert J., Blair
Foley, Thos. H., Omaha
Forney, Lester W., Crete
Fouts, R. W., Omaha
Fuenning, S. I., Lincoln
Garlinghouse, Richd. E., Lincoln
Garlinghouse, Robert O., Lincoln
Gedgoud, John L., Omaha
Geer, Robert R., Gr. Island
Gentry, W. Max, Gering
Gerald, H. F., Omaha
Gifford, H., Omaha
Gray, Richard W., Lincoln
Green, M. C., Omaha
Greene, Arthur M., Omaha
Gridley, L. J., Omaha
Grier, J. J., Omaha
Grier, M. E., Omaha
Hamsa, W. R., Omaha
Hancock, E. W., Lincoln
Haney, W. P., Omaha
Hanisch, L. E., Omaha
Hankins, C. R., Omaha
Hansen, C. H., Omaha
Hansen, G. M., Omaha
Hardman, W. N., Omaha
Hardy, Clyde C., Omaha
Harris, T. T., Omaha
Harrison, M. A., West Point
Harry, R. E., York
Hartmann, C. M., Omaha
Hartman, Gerald V., Omaha
Harvey, H. E., Lincoln
Hayes, Jack M., Omaha
Heider, Chas. F., N. Platte
Henske, J. A., Omaha
Herhahn, Frank T., Scottsbluff
Heumann, J. M. F., Omaha
Heywood, L. T., Omaha
Hickey, C. W., Bennington
Hickman, C. C., Lincoln
Hildinger, A. L., Omaha
Hill, F. C., Omaha
Hill, W. Ray, Wahoo
Hille, C. F., Beaver Crossing
Hoffman, Lloyd O., Omaha
Hohlen, K. S. J., Lincoln
Hollenback, C. F., Omaha
Homan, R. W., Crete
Hook, R. L., Rushville
Howard, C. D., Blair
Hughes, D. O., Fairbury
Hull, Wayne M., Omaha
Hunt, Howard B., Omaha
Irvin, I. W., Auburn
Isaacson, Sven, Omaha
Iwersen, Frank, Omaha
Iwersen, J. C., Omaha
Jackson, Donald R., Omaha
Jahr, Herman M., Omaha
Jakeman, Harry A., Fremont
James, Chas. S., Omaha
Johnson, Earle G., Gr. Island
Johnson, H. F., Omaha
Johnson, L. A., Norfolk
Johnson, R. E., Wausa
Jones, R. T., McCook
Jones, Wesley, Omaha
Kadavy, G. J., Omaha
Keegan, J. Jay, Omaha
Kelly, James F., Omaha
Kelley, Wm. E., Omaha
Kemp, Wm. T., Omaha
Kennedy, H. F., Omaha
Kenner, Wm. C., Nebr. City
Kenney, Bernard V., Omaha
King, H. E., Fullerton
Kirk, E. J., Omaha
Klabenes, Frank J., Omaha
Klieg, J., Jr., Lincoln
Kleitsch, W. P., Lincoln
Knauff, Harry A., Loup City
Koebbe, E. E., Columbus
Kobza, Valerian E., Omaha
Koefoot, T. H., Broken Bow
Korth, Z. N., Omaha
Krampert, F. L., Auburn
Kunel, Joseph, Jr., Alliance
Langdon, J. F., Omaha
Lanspa, J. A., Tecumseh
Larsen, A. A., So. Sioux City
Laughlin, Jos. W., Elm Creek
Lee, L. W., Omaha
Lempka, Arnold W., Omaha
Leininger, E. F., McCook
Leonard, Patrick, Anselmo
Levine, Victor E., Omaha
Loder, Roland H., Lincoln
Loomis, G. W., Omaha
Lovely, Frank T., Omaha
Lueth, Harold C., Omaha
Luikart, Ralph, Omaha
Lukens, Isaiah, Tekamah
Lytton, Geo. J., Norfolk
McArdle, G. P., Omaha
McCarthy, T. F., Lincoln
McConahay, Harold A., Holdrege
McDaniel, V. S., Sargent
McDermott, Arnold, Omaha
McEachen, Esther I., Omaha
McGee, J. W., Omaha
McGoogan, L. S., Omaha
McGrath, W. D., Gr. Island
McrGath, W. M., Gr. Island
McGreer, John T., Jr., Lincoln
McMahon, E. E., Omaha
McMartin, Chas., Omaha
McMartin, W. J., Omaha
McMillan, Aaron M., Omaha
McKee, N. P., Atkinson
McLaughlin, Chas. W., Omaha
MacQuiddy, E. L., Omaha
Malloy, E. F., Fremont
Manning, E. T., Omaha
Margolin, J. M., Omaha
Margolin, M., Omaha
Martin, James W., Omaha
Martin, Otis W., Papillion
Matheny, Z. E., Bellwood
Matson, Roy M., Wayne
Merrick, A. J., Fremont
Miller, Burdette L., Lincoln,
Miller, C. J., Ord
Miller, Harold B., Lincoln
Milliken, L. D., Jr., Omaha
Miner, Falls City
Minnick, Clarence, Cambridge
Misko, G. H., Lincoln
Montgomery, Earl, Omaha
Moon, Chas. F., Omaha
Moon, Louis E., Omaha
Moore, Harlon E., Sutherland
Moore, Ralph C., Omaha
Morgan, Harold S., Lincoln
Morrison, W. H., Omaha
Morrow, Paul N., Omaha
Mountford, F. A., Davenport
Muehlig, G. Kenneth, Omaha
Murray, F. J., Omaha
Murphy, Chas. M., Omaha
Murphy, J. Harry, Omaha
Neely, Orvis A., Lincoln
Nelson, Floyd, Omaha
Nemec, Chas. J., Omaha
Nemec, E. C., Omaha
Neu, Harold N., Omaha
Neumarker, W. R., Columbus
Newman, J. C., Gr. Island
Niehaus, F. W., Omaha
Nielsen, Morris, Blair
Nilsson, John F., Omaha
Nilsson, John R., Omaha
Novak, W. F., Omaha
Noyes, Wm. W., Ceresco
Nye, Dan A., Lincoln
O'Brien, D. J., Omaha
Offerman, A. J., Omaha
O'Hearn, J. J., Omaha
O'Neill, Gerald C., Omaha
Osheroff, S. A., Omaha
Panzer, Harold J., Bassett
Parsons, A., Valley
Paulson, H. O., Lincoln
Pelikan, C. C., Lincoln
Penner, D. H., Beatrice
Penner, E. L., Beatrice
Peters, G. E., Randolph
Peterson, Theo. A., Holdrege
Petty, W. S., Lincoln
Pierson, C. A., Pender
Pinney, Geo., Hastings
Pleiss, Joseph A., Omaha
Pollack, F. A., Norfolk
Pollard, C. W., Peru
Potts, John B., Omaha
Prichard, Geo. W., Omaha
Quigley, D. D. T., Omaha
Quigley, W. H., Omaha
Rapp, W. E., Omaha
Read, Paul S., Omaha
Reaney, B. V., Omaha
Redfield, J. B., No. Platte
Redgwick, J. P., Omaha
Reeder, Grant S., Fremont
Reeder, R. C., Valentine
Reese, Sidney O., Lincoln
Reid, John D., Pilger
Riddell, Ted E., Scottsbluff
Riley, B. M., Omaha
Robertson, Geo. E., Omaha
Rogers, E. A., Lincoln
Rose, F. I., Lincoln
Rose, W. E., Kearney
Rowe, E. W., Lincoln
Royal, Paul A., Lincoln
Royer, H., Gr. Island
Rubendall, Clarence, Omaha
Rubnitz, A. S., Omaha
Rudloff, F. X., Battle Creek
Runty, H. D., DeWitt
Russum, B. C., Omaha
Ruzicka, M. J., Lincoln
Rydberg, C. A, Litchfield
Ryder, Frank D, Gr. Island
Sage, Earl C., Omaha
Salter, Geo. B., Norfolk
Sandritter, G. Lee, Norfolk
Sauer, L. E., Tekamah
Severin, Matthew, Omaha
Schaefers, R. H., Hastings
Schenken, J. R., Omaha
Schmitz, W. H., Omaha
Schwedhelm, A. J., Norfolk
Schwertley, F. J., Omaha
Scott, Paul M., Auburn
Sharar, Lynn E., Lincoln
Shearer, Wm. L., Omaha
Sheets, C. H., Cozad
Shook, W. E., Shubert
Simecek, Victor H., Crete
Simpson, John E., Omaha
Slavik, Edward R., Fullerton
Slutzky, Ben, Omaha
Smith, A. A., Hastings
Solomon, W. W., Omaha
Squires, Robert S., Lancaster
Stafford, G. E., Lincoln
Stanard, J. T., Seward
Stark, Lucien, Norfolk
Staubitz, H. F., Omaha
Stearns, Robert J., Omaha
Steenburg, D. B., Aurora
Steenburg, E. A., Aurora
Steed, W. David, Omaha
Stemper, Jack M., Omaha
Still, Richard M., Lincoln
Stonecypher, D. D., Nebr. City
Stuart, A. E., Cedar Bluffs
Sucha, W. L., Omaha
Sullivan, G. W., St. Edward
Surber, Estel G., Norfolk
Swenson, S. A., Hay Springs
Swenson, S. A., Jr., Omaha
Taborsky, A. F., Lincoln
Tanner, Frank H., Lincoln
Taylor, Harry Allen, Lincoln
Taylor, W. H., Omaha
Teal, Frederick F., Lincoln
Teal, Fritz, Lincoln
Thierstein, S. T., Lincoln
Thomas, John M., Omaha
Thompson, I. L., West Point
Thomson, Bertha M., Peru
Thomson, J. E. M., Lincoln
Tipton, Paul W., Omaha
Tollman, J. Perry, Omaha
Tomlinson, C. C., Omaha
Tompkins, Chas. A., Omaha
Torpy, Thos. W., Omaha
Traynor, R. L., Omaha
Trimble, C. R., Omaha
Troester, O. M., Hampton
Tyson, R. W., Murray
Underwood, G. R., Lincoln
Van Ackeren, Eugene, Tecumseh
Van Metre, R. T., Fremont
Verges, Val C., Norfolk

Vesely, F., Lewellen
Vetter, James G., Omaha
Vincent, J. W., West Point
Vroman, D. C., Omaha
Waddell, J. C., Beatrice
Wahl, J. W., Syracuse
Walker, Geo. H., Lincoln
Walker, D. A., Mullen
Wall, Wm. L., Lincoln
Welch, J. S., Lincoln
Warner, Ruth A., Lincoln
Warta, J. J., Omaha
Way, Chas. W., Wahoo
Webman, Arnold I., Superior
Weeks, T. L., Nebr. City
Wegner, E. S., Lincoln
Wengert, D. B., Fremont
Whitham, Roy H., Lincoln
Whitcomb, Glenn D., Omaha
Whitlock, H. H., Lincoln
Wiedman, E. V., Lincoln
Wigton, H. A., Omaha
Wigton, R. S., Omaha
Wilcox, Clyde W., Ansley
Wilcox, M. B., Kearney
Wiley, S. P., Gering
Wilhelmj, C. M., Omaha
Wood, M., Tekamah
Woodard, J. M., Aurora
Woodin, J. G., Gr. Island
Worthman, H. W., Louisville
Wright, W. E., Creightnn
Wycoff, Ray S., Lexington
Young, G. Alex, Omaha
Young, Richard, Omaha

GUEST SPEAKERS

Adams, Wm. E., Chicago, Ill.
Bassett, Robert C., Ann Arbor, Mich.
Brown, Thomas K., St. Louis, Mo.
Crossen, Robert J., St. Louis, Mo.
Cullen, Stuart C., Iowa City, Ia.
Flocks, R. H., Iowa City, Ia.
Flowler, W. M., Iowa City, Ia.
Haight, Cameron, Ann Arbor, Mich.
Lewin, Philip, Chicago, Ill.
Peterson, F. R., Iowa City, Ia.
Ransom, Henry K., Ann Arbor, Mich.
Sheldon, John M., Ann Arbor, Mich.
Shoulders, H. H., Nashville, Tenn.
Smith, Frank E., Mr., Chicago, Ill.
Tidrick, R. T., Iowa City, Ia.
Warner, Emory D., Iowa City, Ia.
White, Park J., St. Louis, Mo.

GUESTS

Adams, W. E., Cook, Ill.
Adamson, John A., Lt. (jg), Pensacola, Fla
Bisgard, Carl V., Harlan, Ia.
Black, Albert S., Olmsted, Minn.
Blume, D. B., Sioux City, Ia.
Blume, W. R., Sioux City, Ia.
Blumhagen, Rex, Lt., Ft. Crook, Nebr.
Bondurant, J. E., Lt., MC, Ft. Omaha, Nebr.
Brigham, Dwight P. B., Knoxville, Ia.
Brown, Ray G., Onowa, Ia.
Davis, E. V., St. Paul, Minn.
Davis, Glenn E., Ft. Crook, Nebr.
Garrison, Roy, Ft. Omaha, Nebr.
Gillespie, F. B., Fairbanks, Alaska
Heise, C. A., Jr., Jewell, Ia.
Johnson, H. A., Atlantic, Ia.
Kopp, R. E., Lt., Ft. Crook, Nebr.
Lasky, H. J., Lt., MC, Ft Crook, Nebr.
Mezger, Adela, R.N., Omaha, Nebr.
Mills, C. A., Hamilton Co., Ohio
Murphy, George J., St. Louis, Mo.
Myers, Harold A., Lt. Col., Ft. Crook, Nebr.
Reis, Frederick M., Ft. Omaha, Nebr.
Russell, Gladys, Reporter, Chicago, Ill.
Schwartz, John W., Sioux City, Ia.
Sherwood, R. G., Tulsa, Okla.
Simonsen, M., Sioux City, Ia.
Terhune, Neil C., Ft. Crook, Nebr.
Vinciguerra, P. L., Lt., MC, Ft. Omaha, Nebr.
Walvoord, Carl A., Dunlap, Ia.
Warner, E. D., Iowa City, Ia.
Winter, Lewis, Jr., Western, Nebr.
Wortman, A. V., Lt. Comdr., Los Angeles, Calif.

RESIDENTS, INTERNS, STUDENTS

Alcorn, Harry W., Omaha
Anderson, Milton H., Omaha
Anderson, T. R., Omaha
Browne, Kenneth M., Omaha
Brush, John H., Omaha
Chadek, Leonard, Omaha
Chang, Gordon, Omaha
Conlin, F. Dixon, Omaha
Conlin, Marian, Omaha
Cooke, Edwin T., Omaha
Crasafulli, Nino S., Omaha
Dalager, Robert D., Omaha
Farrage, Edward R., Omaha
Flynn, Joan, Omaha
Gass, Chas. C., Omaha
Giles, W. C., Omaha
Grieve, Barbara A., Lincoln
Hargrove, E. A., Omaha
Harvey, Harold E., Lincoln
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  - Burbridge, Fern, Box 1666, Lincoln
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  - Keiser, Ruth, 4612½ Bedford Ave., Omaha
  - Lickert, Margaret, 4821 No. 16th, Omaha
  - Morse, Anne G., Omaha
  - Poole, Virginia, 204 So. 25th Ave., Omaha
  - Van Geeson, Margaret, 204 So. 25th Ave., Omaha
  - Wise, Dee, Kansas City, Mo.
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- Chicago, Illinois
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- Phebus Surgical Company
- Omaha, Nebraska
  - Bloom, C. M., 4513 Fontenelle Blvd., Omaha
  - Siegner, Eugene J., 1619 Howard, Omaha
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  - Yates, L. W., Omaha
- Ulmer Pharmacal Company
- Minneapolis, Minnesota
  - Else, M. W., Minneapolis

"CALL ON SOME DOCTORS, SON . . ."

The apple-cheeked investment salesman, freshly weaned from college, sets forth in the world with two pieces of equipment—a brief case for that dignified look, and some sound advice from his elders.

The old-timers in stocks and bonds slap him on the back and give him the advice they had when they were young:

"Go call on some doctors, son."

It is sound advice. Doctors, too often, are good prospects for blue-sky investments. When it comes to slick trading in securities, they haven't the time to investigate. They're scientists, analysts of human ailments, artists of the operating room, travellers in the night, worriers, dreamers, thinkers and curers. But not financiers.

Diagnose an illness? Sure. But when a thousand dollars could be made or lost on a one-point change in Giltedge Preferred, they're busy; a child's appendix has ruptured.

Buy the best x-ray machine at the right price? Probably. But skillfully manipulate industrial investments to put their children through college? Or to take care of the family when the old ears are not so sharply attuned to the stethoscope, hands not so sure on the scalpel? Not very often.

A doctor is a busy man and a hopeful one—hopeful that the fees will take care of the future. True, some doctors are wealthy, or near it. To most, wealth is just something someone else enjoys. But many doctors, lulled by the crowded waiting rooms which went hand-in-hand with the war-born doctor shortage, figure they'll be pretty well set for retirement, the way fees are piling up.

Yes, the doctor needs a "bullet-proof" investment, and the United States has provided it in Savings Bonds. We all know that, but just to make it available isn't enough.

Most doctors need something more. In business matters they need a string tied around a finger. The Government is offering this to them in the new Bond-a-Month Plan. Your bank ties the string, gives it a yank every month. And all the doctor has to do is leave it there. Wilson Mizner said: "The gent who wakes up and finds himself a success hasn't been asleep." As to planning his future, once the doctor has invested in Bond-a-Month, he can give all his attention to his important work.

Before getting down to what the Bond-a-Month Plan can do for the non-salaried doctor, let's take a look at some of the facts in the case of the average practitioner. He's busy, more of late than ever before. His routine is hospital calls, perhaps an operation or two, office hours, house calls, office records, telephoning, more calls after dinner. Every so often a baby fails to realize the doctor has a schedule, or someone breaks a leg, or gets measles. Even the specialists work no 9-to-5 day.

The U. S. Department of Commerce has made studies of doctors' incomes, based on reports of a sample of the 129,000 men and women in private practice in 1940. The studies show that the income rises slowly to a maximum in the early 50's and then starts dropping. From 35 to 54 is the real money-making period.

At 35, most doctors have begun to pay off their starting-in-business debts, have built up a small neighborhood practice and are becoming known. Their practice grows with ability. By the time they are 54, other doctors, young and vigorous, have come in with new methods, machines, theories. They make inroads into the established practice of the veteran. The older man no longer so willingly drives out into the country on sick calls. Office hours are shaved a little at the start and the end of the day. There are fewer operations.

And somehow, without the doctor's really knowing why, the bank balance doesn't hold up the way it used to.

To come as close as we can to keeping the horse in front of the cart, let's see what a Bond-a-Month will do and then explain why this is the solution to the doctor's problem of saving for future security.

Bond-a-Month opens systematic saving through Government bonds to anyone with income and a checking account in a bank. Until now this was available only through Payroll Savings. It operates this way:

The depositor who wishes to buy a bond each month signs a card authorizing the bank to deduct the purchase price from his checking account. The bank issues the bonds and delivers them to the customer monthly. The periodic bank statement shows payment for the bonds.

And from the first and the only time the doctor signs his authorization card, he has nothing else to do except open the envelopes the bank sends him with the bonds inside.

What does the doctor need?

1. He needs some sort of arrangement for his financial future because, according to studies of his profession, incomes of physicians are much more responsive to change in the national income than are the incomes in other professions. If the national income drops and patients no longer can afford to call on the doctor so often or to pay him as quickly, a doctor's bankbook will feel the change.

2. In most instances the doctor has no social security or pension to fall back on. Thus, he needs something to serve as an old-age reserve.

3. He needs simplicity—an arrangements which does not call for continual checking, manipulating, buying and selling.

4. He needs safety. He cannot afford to take the risks which must be protected by constant market vigilance, by buying and selling strategically.

A savings bond plan should be the foundation upon which the doctor builds his security. There is no safer investment in the world than Savings Bonds. There is no riskless investment which pays such a guaranteed return.

Consider:

	In five years you will have	In ten years you will have
$ 37.50*	$ 2,319.00	$ 4,998.00
75.00*	4,638.00	9,996.00
150.00*	9,276.00	19,992.00
300.00*	18,552.00	39,984.00

* Monthly investment under Bond-a-Month Plan

Here, for the doctor himself, are vitamins E, F and G, thoroughly tested and always compounded with interest. These "vitamins" ease common symptoms of post-middle age such as chronic worry and doubt. They are available at a bank near you. And with millions of current users, we can make this unusual guarantee; one and third times your money back if you are satisfied.

DEATHS

Frank Ashael Burnham, M.D., Arnold. Born in New York State in 1877. The family moved to Burchard, Nebr., in 1884. He graduated from the University of Nebraska College of Medicine in 1911 and located in Arnold in 1912. Dr. Burnham had a busy professional and civic career. He was a member of the Custer County Medical Society, serving as its president, and delegate to the Nebraska State Medical Association, and a Fellow of the American Medical Association. For years he was a member of the local Board of Education and the Library Board. He died April 6, 1947.

Joseph Eugene Benton, M.D., Central City. Born in Illinois in 1876. Came to Central City during childhood, received his education in the Central City schools, following which he attended Cornell College at Mt. Vernon, Iowa. In 1897 he graduated from the University of Nebraska College of Medicine and began the practice of medicine with his father in Central City soon thereafter. He was a member of the Tri-County Medical Society, Nebraska State Medical Association and a Fellow of the American Medical Association. He served as delegate to the Nebraska State Medical Association on several occasions. Dr. Benton was surgeon for the Burlington and Union Pacific railroads. He died April 29, 1947. Surviving are his wife and daughter, and a son, Eugene Benton.

Harry J. Newell, M.D., Alexandria. Born in Michigan in 1872. Early in childhood he came with his parents to homestead near Alexandria. He graduated from Creighton University School of Medicine in 1903, and began his practice in Alexandria in the same year. Dr. Newell took an active part in civic and professional affairs and served the community as a member of the school board and also as health officer of the county. He died in a New York Hospital May 4, 1947. He is survived by his wife and a daughter.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The **Six County Medical Society** (Holt, Boyd, Rock, Keya Paha, Brown and Cherry Counties met at Bassett, April 24. The following officers were elected: Dr. W. D. Lear, President; Harold Panzer, Secretary-Treasurer, and Dr. R. R. Brady of Ainsworth is the new councilor. Dr. Panzer was chosen delegate with Dr. Robert Reeder as alternate.

The **Adams County Medical Society** held its last meeting of the year May 6, at the Hastings State Hospital, with dinner at 6 p.m. Dr. H. S. Andrews, Minden, Councilor from the 10th District, and Dr. George Pinney and Dr. R. H. Schaefers made a report on the recent state meeting of the Nebraska State Medical Association. Following the business session, Dr. D. W. Kingsley of Hastings presented a paper on the "Treatment of Fractures of the Hip."

The Scotts Bluff County Medical Society met at the Methodist Hospital at Scottsbluff on May 8. The purpose of the meeting was mainly to discuss the pattern of undulant fever in the Scottsbluff area. Taking part in the program were Dr. W. S. Petty, Director of State Department of Health; Dr. L. O.

Voss of the Health Department; Dr. J. R. Snyder, state veterinarian, and Dr. Carl J. Jordan of Des Moines, director of the division of preventable diseases of the Iowa State Health Department.

The Tri-County Medical Association met on April 28 at the home of Dr. and Mrs. J. B. Pankau of Dalton. Doctors and their wives had dinner in the Party Room in the Dalton Cafe. The evening meeting was devoted to a discussion of medical problems.

The regular meeting of the **Omaha-Douglas County Medical Society** was held on Tuesday, April 8, 1947, in the Medical Arts Auditorium, and called to order by President Schrock at 8 p.m.

The first speaker on the scientific program was Dr. L. L. Fatherree, City Health Director, who read an interesting paper on "The Place of the Practicing Physician in a Comunity Health Program.

Dr. James E. M. Thomson, orthopedist of Lincoln, and one of ten physicians who spent three months in Czechoslovakia on a teaching mission under the auspices of the Unitarian Service Committee, spoke on "A Review of the Status of Medical Education in Central Europe. Dr. Thomson spoke of the great need of that country for medical aid as no medical college had been in operation, and there had been no imports of medical literature, since 1939. The doctor stated that the efforts of his group were greatly appreciated by the people.

Doctors' wives were invited to attend this meeting, as well as board members of the local Unitarian Church. One hundred thirty-six persons registered.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Richard B. Engle has located in Harvard, Nebr.

Dr. L. E. Ragan has reentered the Naval Service as Lt. Commander.

Dr. John D. LeMar is now with the Veterans Hospital at Fargo, N. D.

Dr. Anthony Parsons, Valley, celebrated his 70th birthday on March 20, 1947.

Dr. Ralph Weaver, formerly of Marquette, has located at Cumberland, Iowa.

According to press reports Dr. J. W. Rouse is planning on locating at Clarkson, Nebr.

Dr. John J. Melvin, a former resident of Verdigre, died in Oakland, Calif., on April 6.

Dr. M. D. Frazer of Lincoln attended a meeting of the Radiological Society in Philadelphia in April.

Dr. Samuel Z. Faier, now practicing at Ft. Smith, Ark., spent a week in April visiting parents and friends in Omaha.

Dr. Juul Nielsen of Hastings, was a guest speaker of the State Mental Hygiene Society of Iowa the latter part of April.

Dr. F. J. Klabenes of Omaha recently took a two weeks' postgraduate course at the University of Indiana School of Medicine.

Dr. M. C. Johnson, formerly of Valparaiso, has become associated with Dr. C. R. Watson at the Watson Clinic, Mitchell, Nebr.

Dr. Albert S. Black, Jr., plastic surgeon from Mayo Clinic, Rochester, has been added to the faculty of Creighton University School of Medicine.

Dr. R. D. Bryson, Callaway, had half of his middle finger on the left hand removed April 10. The doctor states this was the "result of too much x-ray 20 years ago."

Capt. Joseph. B. Schrock, Scottsbluff, is home on terminal leave. He will begin a residency in general surgery at the Franklin Square Hospital, Baltimore, Maryland, July 1.

Dr. Harold N. Neu attended the sessions of the American College of Physicians postgraduate course on peripheral vascular disease and rheumatic diseases held at the Mayo Clinic, March 17 to 29.

Dr. Harold S. Lueth, Dean of the Medical College of the University of Nebraska, addressed the Interprofessional Institute, Lincoln, in April; on "The Future of Medical Education at the University of Nebraska."

Succeeding Dr. L. H. Dunham, who was recently killed in an airplane accident, near Scottsbluff, is Dr. John L. Cutler, formerly of Torrington and Salt Lake City. Dr. Cutler is a native of Nebraska, graduate from University of Illinois College of Medicine.

According to local news reports Dr. Earle G. Johnson of Grand Island will retire from practice July 1.

Also retiring from active practice are Dr. Charles B. Edwards of Kearney, and Dr. C. H. Waters of Omaha.

Dr. M. L. Wilson, Falls City physician, has been presented with a medal by the Richardson County Medical association as a special mark of tribute for his 50 years of service to humanity as a country doctor in this area. Dr. Wilson began practice at Humboldt in 1896, shortly after graduation from the medical department of Cotner college at Lincoln. After 10 years of practice in Humboldt, Dr. Wilson went to Chicago where he took a post-graduate course at the Chicago Polyclinic and then in 1906, he hung out his shingle in Falls City and has remained here ever since.

Tuberculosis Abstracts

Tuberculosis among medical students and nurses remains a localized point of resistance to generally effective control measures. This is an anomalous situation when one considers that tuberculin tests, the use of x-ray in diagnosis and the principles of isolation technique are being taught and demonstrated to these students while apparently not fully utilized for their protection. This situation is a professional challenge to schools of medicine and nursing. Society can ill afford to lose the usefulness of these carefully chosen and highly trained young people as they prepare for or begin what should be a life of service in their profession.

PULMONARY TUBERCULOSIS IN HARVARD MEDICAL STUDENTS

Despite a marked fall in the morbidity and mortality due to pulmonary tuberculosis among the general population and despite advances in its early diagnosis and treatment, tuberculous infection of the lung remains the most serious medical problem that confronts the medical student. Although for more than a century European clinicians had been aware of an apparent high incidence of pulmonary tuberculosis among medical students, a similar high incidence was overlooked in American medical schools until 1930. Since that date several surveys have shown that rates depend somewhat on the geographic origin of the student body, the location of the school, the diagnostic criteria and the care with which the survey was conducted. The most carefully conducted surveys report an incidence in the neighborhood of one or two per cent.

The medical histories of 24 classes of the Harvard Medical School, beginning with the class of 1926, were studied. All available clinical information, including x-ray films as well as sanatorium reports and personal communications, was reviewed in each case.

In all cases considered in this study chest films showed either the appearance of a lesion not previously present or extension of a previously known lesion. Calcified primary complexes, however extensive, thickened apical caps, blunted costophrenic angles and small apparently obsolete nodules were not considered clinically significant, and were not included. Supporting clinical evidence for activity included at least one of the following symptoms: cough, hemoptysis, fever, anorexia, weight loss and general malaise. In many cases acid-fast bacilli were demonstrated.

The tuberculin-test figures were derived from the original work sheets of the routine tuberculin surveys. The two-test-dose, intradermal method was used, the results being read in 48 hours. Induration of at least 5 mm. in diameter was used as the sole criterion of a positive test. Slightly over 30 per cent of students entering Harvard Medical School as nonreactors became tuberculin reactors before graduation.

Of 3,160 students from 1922 through 1945, it is known that 44 developed pulmonary tuberculosis—an over-all incidence of 1.4 per cent. Because of the incomplete case-finding program prior to 1936, however, undoubtedly many cases went unrecognized. Classes in which no organized case-finding program was conducted had an incidence of 0.9 per cent. In the group which had routine chest films and tuberclin tests on admission and in which many students had chest films in their fourth year, the incidence was 1.1 per cent. In classes in which routine admission chest x-ray examination and tuberculin tests were followed by annual re-examination of nonreactors by means of the tuberculin test, and of most positive reactors by x-ray, the rate was 2.2 per cent.

An incidence almost three times that known before the introduction of a case-finding program is in accordance with the experience of other medical schools.

The duration of disability caused by the pulmonary lesion was closely correlated with the severity of the lesion at the time of its discovery. Students with major lesions have had prolonged periods of disability and several failed to complete their medical education. Students whose lesions were detected by the appearance of symptoms nearly always showed major lesions, whereas just as regularly students whose lesions were detected by routine examination showed minor lesions. Only about half the students with minor lesions required sanatorium care. The average stay in these cases was 14 months.

The effectiveness of routine examination in the detection of early lesions makes frequent examination mandatory. The case-finding program, consisting of routine tuberculin tests and chest x-ray examination on entry and at graduation has been progressively modified to the semiannual examination. During the period of annual examination, a large proportion of the lesions became symptomatic, and were thereby detected, before the time of reexamination. In addition, at least three students developed major lesions within a year of having been found to be nonreactors to the annual tuberculin test.

It is believed that six months represents the maximum interval that should be allowed to elapse between routine x-ray examination of tuberculin reactors and tuberculin tests of nonreactors. When students previously nonreactors become reactors in the semiannual examination, x-ray examination of the chest should probably be done every six weeks for six months, and every three months for the remainder of the year. The rapidity of progression of the disease in medical students is such that many lesions become symptomatically evident, and are thereby detected, in intervals between routine examinations made only annually.

The adoption of a program in which surveys are made at intervals more frequent than once a year has led to the elimination of almost all symptom-detected cases and of all major lesions. It is believed that a semiannual examination represents the maximum interval for routine reexamination by x-ray or tuberculin tests not only for medical students but also for nurses and interns.

Although the number of cases of pulmonary tuberculosis discovered in the last two years of the medical-school course was four times as great as the number developing in the first two years, the incidence of acquisition of tuberculous infection as determined by the tuberculin test was about the same (12 or 13 per cent annually) for each academic year. This constant annual attack rate suggests that factors other than opportunity for infection are responsible for the fourfold increase in cases of pulmonary tuberculosis during clinical training.

—Pulmonary Tuberculosis in Harvard Medical Students, Henry P. Brean, M.D. and Lewis W. Kane, M.D., The New England Journal of Medicine, September 5, 1946.

PARERGON

The third edition of PARERGON published by Mead Johnson & Company, Evansville, Ind., is just off the press. It contains 208 pages—1090 illustrations of original art works of physicians. Price $5.00. The annual exhibits of the American Physicians Art Association coincide with meetings of the American Medical Association. The membership of the Art Association is around 1200 physician-artists and more than 300 physicians who hope to become artists, or who, by belonging, lend moral and material support to a worthy cause. "PARERGON" is an excellent addition to your reception room reading table.

This Third Edition contains the following illustrations of art works by Nebraska artists:

Gifford Road Along the Missouri, oil, Harrison A. Wigton, M.D., Omaha.

Miss Venus, 1945, crayon, Gregory L. Endres, M.D., Omaha.

Her First Rose, photograph, John P. Wendland, M.D., Omaha.

Lake Marie, Snowy Range, photograph, Clarence Emerson, M.D., Lincoln.

Lum and Abner, wood carving, C. W. Neill, M.D., Sioux City.

Meditating, wood carving, C. C. Pelikan, M.D., Lincoln.

Dr. John Lincoln Porter, My Teacher, sculpture, J. E. M. Thomson, M.D., Lincoln.

Physician Struggling with Death for Life, sculpture, A. E. Reeves, M.D., North Platte.

Two art exhibits will be held at Atlantic City, N. J., June 9-12, 1947; one for the best art works memorializing the medical profession's "Courage and Devotion Beyond the Call of Duty," and one is the Ninth A.P.A.A. Regular Art Exhibit. For full information please write the Association's Secretary, Dr. F. H. Redewill, Flood Building, San Francisco, 2, Calif., or the sponsor, Mead Johnson & Company, Evansville 21, Ind.

We take this opportunity to compliment Mead Johnson & Company for undertaking this time consuming and expensive venture.

TREND TOWARD RURAL PRACTICE BY RETURNED DOCTORS

The Bureau of Information of the American Medical Association, which provides the medical officer with information regarding areas needing physicians, "is sensing the trend of returned medical officers to move away from their recent venture in city practice to accept the opportunities of more active practice in smaller communities," according to Virginia Shuler, Director.

Writing in The Journal of the American Medical Association, May 17, the author points out:

"Demobilization is not completely over. Many young physicians are still in the armed forces, and a large proportion of the resident physicians doing postgraduate work in hospitals are men who served in World War II. According to the Directory Department of the American Medical Association, approximately five thousand physicians have not yet decided on a permanent location.

"Already the Bureau of Information is sensing the trend of returned medical officers to move away from their recent venture in city practice to accept the opportunities of more active practice in smaller communities. From studies of physician distribution the general picture for location of physicians during the year following V-J day shows an adequate supply of physicians in most of the states but reflects a need for a more coordinated system of medical service in many of the rural areas.

"Leaders of the medical profession interested in better rural medical service are working with the farm organizations to outline a program of activity to develop in rural areas an appreciation of modern medical service and the responsibility of the community in planning a health program that will make the country physician a working partner toward decentralization of medical care from urban or large trade centers to the more rural sections of the population. The medical profession and the farm groups want to make rural medical service more adequate not only to the farmer but also to those who extend this service to the farmer.

"Dr. F. S. Crockett, Chairman of the Committee on Rural Medical Service of the American Medical Association, has recently announced that the Farm Bureau, the Farmers Union, the Cooperative Milk Producers' Federation and the Grange have each appointed two of their members to act in an advisory capacity to the Commitee on Rural Medical Service of the American Medical Association. This committee will hold a meeting soon to outline and develop an active program for regional and local rural representatives. Thomas A. Hendricks, Secretary of the Council on Medical Service, is working out a plan with the Committee on Rural Medical Service to coordinate the council's and the committee's regional meetings in order to develop through workshop conferences the most adequate extension of medical service to all areas.

"In December, 1946, the Bureau of Information began a survey through the local medical societies to determine the conditions and distribution of medical care in the rural areas of the country. Through the cooperation of the secretaries of the state and county medical societies, listings of areas which have requested physicians are available to help the doctor in selecting an area in which to establish his medical practice."

Accompanying The Journal article are reproductions of several state maps showing the trend in locations of physicians from April, 1946 to January, 1947—the peak period of demobilization of doctors from the armed services. The article also carries comments by several state medical secretaries of conditions and distribution of physicians as related to medical care in their counties.

PHYSICAL EXAMS FOR PILOTS HAVE DEPRECIATED

The tendency of the Civilian Aeronautics Administration to depreciate the quality of physical examinations for pilots has been assailed by both The Journal of the American Medical Association and the Journal of Aviation Medicine. The May 10 issue of The Journal of the A.M.A. says:

The Journal has commented previously on the failure of the Civilian Aeronautics Administration to have its physical examinations conducted by competent physicians. The Journal of Aviation Medicine points out that the department ruled that osteopaths could make these examinations a few years ago and now examinations are being accepted even from chiropractors. How many of the persons who observe air transport realize that this is the type of protection afforded by the government agency? When one contrasts the kind of education given to low grade nonmedical healers with the type of examination made by specialists who are really competent in examining the eyes, the ears and the other special senses on which safe flying so greatly depends, the folly of accepting examinations by the incompetent becomes clearly apparent. The Journal of Aviation Medicine points out that the bars have not thus far been lowered in the case of commercial and airline pilots, but the tendency to depreciate the quality of the examination makes the hazard of such lowering immient. Surely here is a responsibility that the administrator cannot dodge.

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PHYSICIANS DEVELOP NEW MACHINE TO STUDY PUMPING ACTION OF HEART

A new machine for studying the pumping action of the heart is described in the current issue of The American Journal of Roentgenology and Radium Therapy, which is published for medical specialists in x-rays and radium.

It is called an "electrokymograph," and was developed by physicians from Temple University Medical School in Philadelphia.

The machine produces tracings on a moving strip of paper which show in great detail the pumping action of the heart throughout its filling and emptying cycle.

Between heart beats, the muscle in the wall of the heart relaxes, the heart fills with blood, and consequently the wall of the heart moves outward. This outward motion ceases when the heart is filled. Contraction of the muscle then starts, blood is expelled into the arteries, and the heart wall moves inward. Thus a given portion of the heart wall is doing a certain thing at each part of the cycle. The electrokymograph accurately records these movements on the moving strip of paper. For the production of these electrokymographic tracings, the patient merely stands at ease before an ordinary fluoroscope which is equipped with this new device.

The Journal's article was written by George C. Henny, M.S., M.D., professor of medical physics at Temple University Medical School; Bert R. Boone, senior surgeon of the U. S. Public Health Service, and W. Edward Chamberlain, M.D., professor of radiology at Temple University Medical School.

For many years, radiologists—physicians who specialize in diagnosis and treatment with x-rays—and cardiologists—physicians specializing in the diagnosis and treatment of heart disease—have used the x-ray fluoroscope for studying the heart and its pumping action. But they always felt that there was a need for a method of recording this action so that they could study it in greater detail. This is now possible with the electrokymograph, which has already become known medically as E-K-Y. So far the machine, which was awarded a silver medal at the American Medical Association's annual scientific exhibit at San Francisco last June, has been used chiefly in research. Since it is still undergoing rigid experimental tests, the machine isn't being used generally on heart patients as yet.

Professor Henny states that the electrokymograph will not displace the electrocardiograph as a heart instrument. "The information it gives must be considered of a different, but very helpful nature," he says, adding: "There is every indication now that the electrokymograph will soon develop into an instrument with practical value in the study of heart disease."

Here is how the new instrument works: When x-rays are projected through a patient's chest onto the screen of a fluoroscope, a distinct shadow of the beating heart is seen. The electrokymograph uses a new type photo-electric tube or "electric eye" to observe the movements of the edge of the heart shadow and to transform these movements into a changing electric current. The fluctuations in this electric current correspond to these movements and are recorded on the moving paper strip of a

(Continued on page xxviii)

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PHYSICIANS DEVELOP NEW MACHINE TO STUDY PUMPING ACTION OF HEART

(Continued from page xxiv)

recording galvanometer. Abnormalities in the heart action may thus be studied and measured.

Development of the electrokymograph first dates back to 1927 when Dr. Chamberlain and Dr. William Dock, also of Temple University Medical School, began producing tracings of heart-border motion by measuring the individual frames of motion pictures of a patient's beating heart. They found that this method was expensive and cumbersome and looked for a simpler and better method. Dr. Chamberlain then enlisted the help of Dr. Henny, who worked on it occasionally for several years. As the development gradually progressed the U. S. Public Health service assigned Dr. Boone to assist in the project. At about this time new types of photo-electric tubes became available and the electrokymograph soon became a reality.

The three doctors state in their Journal story that "with the apparatus described here, records of heart border motion have excellent detail and fidelity. These records are characterized by freedom from ripple and by photographic clarity. The possibility of precise time measurements is evident."

A.M.A.'S WAR ON QUACKERY MOST IMPORTANT SERVICE TO NATION

"The services rendered by the American Medical Association in its battles against quackery have been widely recognized as one of its most important services in behalf of the people of the United States," states Editor Morris Fishbein, M.D., in the current issue of Hygeia, health magazine of the American Medical Association.

Dr. Fishbein points out that A.M.A., "exposes have served as a check on quackery and charlatanism which might well have been rampant if the charlatans had been permitted to function without the fear of such publications."

The editorial follows in part:

Shortly after 1900 the American Medical Association was sued for libel by two medical colleges that no longer exist. Those suits were the opening guns in the defense of inadequate medical education, quackery and fraud against which the forces of the A.M.A. have been marshalled for more than fifty years. The medical colleges which brought these suits have disappeared.

In 1900 there were 165 medical colleges in the United States, most of which were proprietary in character, some of them even night schools from which a student could graduate with the degree of Doctor of Medicine following two years of attendance. There are today 77 Class A medical colleges in the United States and only one school that fails to meet the minimum standards of the Council on Medical Education and Hospitals.

In 1916 the American Medical Association was sued by the Chattanooga Medicine Company for its expose of Wine of Cardui, a nostrum for women, which was largely a mixture of alcohol with two plant remedies knowns as viburnum prunifolium and Carduus benedictus. No longer do these remedies appear in any list of useful drugs. The manufacturers of that remedy claimed that it could lift up the fallen organs of aging women by tightening

(Continued on page xxix)

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A.M.A.'S WAR ON QUACKERY MOST IMPORTANT SERVICE TO NATION

(Continued from page xxviii)

their ligaments, and the A.M.A. answered by saying that you could no more tighten ligaments in the human body by taking a mixture of alcohol and herbs internally than you could restore the elasticity to a pair of worn out garters by soaking them in whisky.

In the Wine of Cardui case the American Medical Association was compelled to pay one cent damages but obviously that was no measure of what was actually done to the company that marketed the nostrum. In its instructions to the jury in that case, the court pointed out that the American Medical Association in writing its articles was treating a matter of great public concern. In the discussion of a public matter if any person publishes of another a fair and reasonable comment of his conduct of business and the publisher is not actuated by any element of actual malice, then that publication is privileged and there may be no recovery whatever because of that publication. In its attacks on evil in the field of medicine, the association has never been activated by malice.

The suits brought against the association have totaled over $30,000,000. The association has never lost a suit or compromised one, and the award of one cent damages to the Chattanooga Medicine Company is the only decision against the association that has ever been rendered in such cases.

Among those who have sued the American Medical Association for libel were Henry J. Schireson, notorious plastic surgeon who never graduated from a reputable medical school, who has been arrested

(Continued on page xxxii)

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A.M.A.'S WAR ON QUACKERY MOST IMPORTANT SERVICE TO NATION

(Continued from page xxix)

repeatedly in many states and who has been often fined and sentenced to prison for his misdeeds. At the acme of his career he did a bogus operation on the bowed legs of a girl. The x-ray pictures showed that the condition had not even been slightly benefited, that the operation was incompetent and without warrant. Eventually the girl suffered amputation of both legs above the knee as a result of his surgery.

The cancer quacks who have sued or threatened suit are many. Only one such case ever came to trial—namely, that of Norman Baker. He served four years in the penitentiary.

Most widely publicized of all the suits was that of John R. Brinkley who claimed to rejuvenate the aged by the transplantation of sex glands. Eventually Brinkley lost his suit at Del Rio, Texas, and he died shortly thereafter of endocarditis and the amputation of a leg without many of the assets that he had accumulated in a long career of charlatanism . . .

Whenever a new discovery is made in any field of science, there is always some quack ready to adapt that discovery for his personal gain. They have exploited the newer knowledge of electronics (as in the case of Albert Abrams), of glands (as in the case of gland creams and John R. Brinkley), of vitamins (as witnessed by innumerable vitamin follies), and they have exploited the fears of the people for such conditions as syphilis, tuberculosis and cancer. As the atomic age dawns, there are already signs of possible atomic quackeries.

TUMOR OF BONE MARROW

Two new English drugs, used in a New York hospital, have proved effective in checking multiple myeloma, a malignant tumor of the bone marrow.

No effective form of therapy was known for this highly fatal disease until these drugs—Stilbamidine and Pentamidine — demonstrated their tumor controlling and pain relieving properties.

Writing in the January 18 issue of The Journal of the American Medical Association, Isidore Snapper, M.D., from the Second Medical Service of the Mount Sinai Hospital, New York, reviews the treatment of 15 patients.

He states that "all these patients were suffering excruciating pains when the treatment was begun Thirteen were immobilized in bed. All 15 improved considerably as far as the pain itself was concerned. Eleven could walk at the time of discharge from the hospital."

Dr. Snapper points out that the "treatment merely checks the disease and does not cure it."

This disease, usually associated with anemia, causes neuralgic pains. Later, painful swellings appear on the ribs and skull and spontaneous fractures may occur.

Injections into the veins of Stilbamidine proved successful in the majority of patients. However, in two who were not helped by Stilbamidine, Pentamidine was effective.

The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, July, 1947 No. 7

EDITORIAL

THE TEN-POINT HEALTH PROGRAM

On page 293 is the Ten Point Health Program of the American Medical Association. It does not represent a new philosophy or a novel set of principles which typify the attitude of organized medicine toward a National Health Program. In fact a similar Platform was formulated by the House of Delegates of the Association in Chicago and submitted to the profession and to the public in November, 1940. We repeat this Ten Point Program at this time because of some recent developments in Washington.

When the 79th Congress failed to act on the Wagner-Murray-Dingel Bill it was generally assumed that the issue had come to an unsuccessful end. This assumption was strengthened by the November 1946, elections. The Taft Bill (S-545) introduced early in session of the present congress offered the possibility of a fair solution to the problem of medical care without bureaucratic involvement of doctor and patient, for unlike its monstrous predecessor, the Taft Bill calls for allotments of Federal funds to States on the basis of need with administration on local levels. In addition to other sensible provisions S-545 seeks to encourage non-profit, pre-payment service plans sponsored by the medical profession in which moderate income groups can participate without compulsion.

Those who have studied the nature and habits of professional reformers warned that that Wagner-Murray-Dingel Bill did not die. It had merely gone into hibernation, to emerge in due time with renewed vigor, reshaped and remodelled, glamorous and attractive, in position to take the unsuspecting public by storm. Whether the honorable Senators consider a few months as adequate molting time for their "opus" or whether they sense new but predictable social phenomena developing in the near future, we do not know. Rumors in the capitol have it that Senators Wagner and Murray have enlisted the services of well-known, though in medical circles not well appreciated Senator Pepper to clinch the cause of compulsory insurance. It is possible that their new National Health Bill will have been introduced by the time these remarks have appeared in print. Needless to say the contents of the bill have not been made public, but can we be too optimistic about the capacity of the leopard to change its spots?

It is unfortunate that so many of our national leaders, because of sheer ignorance or purposeful misrepresentations, for over a quarter of a century have been hammering into the public the idea that medical care under government compulsion will create a panacea in growth and development of our children, and bring about the Fountains of Youth for the aged. Political dominations according to these arm-chair philosophers, will solve all problems of faulty distribution of medical care and thus eliminate all diseases and handicaps to which our good and not-so-good citizens are heir. These contentions are as ridiculous as they are false, and they would be so accepted if only our people were equipped to evaluate all the social factors which bear a direct influence on the health of the individual and the physical and moral strength of the nation.

It is a sad reflection upon our government and its innumerable experts that whenever the issue of National Health is presented to our citizens, the Medical Profession invariably comes in as a scapegoat. Instead of acquainting the people with the principles underlying health and its conservation, all their energies are spent in condemning the efforts of the leaders of medicine in order to befog the true issue. As a result, the whole burden of true health education falls upon the physicians of this country. Organized medicine has taken up the challenge and it is now up to the individual doctor to do all within his power to stave off political domination. The Ten Point Program constitutes the set of principles for which we strive. It is the responsibility of every practicing physician to acquaint himself with these principles and carry them to the patients individually and collectively, for it is the patients who ultimately will determine whether we shall have a free profession or a profession which will be submerged in a political mire. The strength of organized medicine is measured by the loyalty and efforts of each individual member.

READ THE MINUTES

Again we urge you to read carefully the minutes of the Council and the House of Delegates of the Nebraska State Medical Association recorded in this issue on page 287. Members of the Council and House of Delegates have put in many hours studying and evaluating problems which came before them. These problems are not only their problems, they are yours as well. The Association is yours, and you should know what is going on. Its policies are your policies. We ask particularly that you read the supplemental report brought in by Dr. A. J. Offerman, the President of the Nebraska Medical Service. The report is of vital interest to every practicing physician. Every member must have a clear concept of his relationship to the Nebraska Medical Service and also to the Veterans Administration. Individually he must feel that policies laid down by his Association are his policies. To plead ignorance is a poor reflection, not only on the Association, but, as well on the doctor himself. If these policies are not in accord with his own beliefs or his own practices, the doctor has the right to say so. But in fairness to all concerned including the doctor himself and the patients under his care, the doctor must look upon the State Association as his representative and treat its decisions accordingly.

The minutes are a record of the policies and decisions of the Nebraska State Medical Association. They are your policies and your decisions.

STEPHEN GRAHAM, FAMILY DOCTOR

"Stephen Graham, Family Doctor" is a weekly program broadcast over the Mutual network and its affiliated stations. It is sponsored by the Council on Public Relations and the Bureau of Health Education of the American Medical Bureau for the purpose of telling the people of this country the true story about medicine and about the doctors who supply medical care in all its phases: preventive, curative, public health or personal, whether in the physical or emotional sphere. Those who have heard these dramatic presentations have been agreeably surprised. This is particularly true of our own members who at first admittedly tuned in "out of duty, or out of curiosity" expecting to hear the usual "soap opera" type of drama gooed up with the usual mush and scenery-chewing pathos. What they actually heard and what they are continuing to hear each week, is a true account of their own everyday life and service in the community.

We commend Dr. W. W. Bauer, director of the Bureau of Health Education of the American Medical Association for the nature and quality of these broadcasts. It is not easy to procure sustaining interest in plots which portray the usual rather than the romantic incidents in daily living. Yet here we have evidence that simple incidents truthfully presented have a wholesome dramatic appeal. As to the value of these programs as a menstruum for good public relations we cannot conceive of anything better or more effective. They are as entertaining as they are informative.

All Mutual stations in Nebraska carry "Stephen Graham, Family Doctor." A list of these, and the time at which the program may be heard, follows:

Fremont—KORN, 8:30-9 p.m., Monday.
Hastings—KHAS, 8:30-9 p.m., Monday.
Kearney—KGFW, 9:30-10 p.m., Monday.
Omaha—KBON, 1:30-2 p.m., Tuesday.

The Exhibit Section of the Army Medical Museum has recently been expanded and is now open to the public in its new quarters on Independence Avenue, between 8th and 9th Streets, S.W., Washington, D.C., diagonally across the street from the old location. This has been made necessary because of the acquisition of much new material. Exhibits on various diseases, comparative anatomy, and embryology are on display, in addition to historical collections of coins, stamps, and medical instruments.

Congestive Heart Failure*

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PATHOGENESIS AND MECHANISM

Congestive failure, cardiac failure and cardiac decompensation are terms generally employed to designate an inability of the cardiac muscle to maintain a sufficient circulation for daily body requirements. These terms imply general venous congestion of a degree to produce signs or symptoms. It is important to distinguish between this type of heart failure and failure of the peripheral vascular system such as occurs in syncope, shock or collapse. In failure of the peripheral vascular system, the clinical picture is primarily determined by the physiological response of the body to trauma in the broad sense, and secondarily by the reaction to failure of circulation. This condition differs from congestive failure in mechanism and therapy and will not be dealt with in this presentation.

In the majority of instances congestive heart failure results from strain of various kinds upon an impaired myocardium. The most common structural abnormality is cardiac enlargement following hypertrophy and dilatation. In extensive coronary thrombosis, severe rheumatic carditis, or extreme prolonged paroxysmal tachycardia (especially in children), dilatation alone may be present. Hypertrophy is generally regarded as the result of prolonged persistant strain upon the heart muscle such as is seen in arterial hypertension or valvular or septal defects. However, impaired nutrition as seen in severe anemias, coronary arterial disease and inflammatory or toxic reactions of certain infections, results in abnormal stretching of the heart muscle producing hypertrophy as well as dilatation.

Failure of the left ventricle alone gives rise to symptoms and signs from congestion of the pulmonary vascular circuit. There is diminution in the vital capacity, dyspnea, cough, sputum and moist rales at the bases of the lungs. Onset of failure may be sudden, with asthmatic breathing or with acute pulmonary edema with frothy, frequently blood stained, sputum. Attacks of paroxysmal nocturnal dyspnea are dramatic episodes of acute left ventricular failure. Explanation of this phenomena upon a pathological physiologic basis is still theoretical. Pulmonary engorgement resulting in definite nervous reflexes transmitted through the vagus nerve has been considered an important factor in precipitating the attack. Also increased sensitivity of the respiratory center as the result of acidosis, or the removal of the control of the respiratory center from the higher centers during sleep is thought to occur. The dramatic relief that follows the use of Morphine would tend to substantiate this theory. More recently, shifting edema during sleep in a horizontal position has been suggested as a possible initiating factor. The relief obtained by a sitting posture would indicate that this does occur. A less important cause of such dyspnea is marked mitral stenosis, as pointed out by Paul White(1). A sudden moderate or marked tachycardia as from the onset of auricular fibrillation which is so common in mitral stenosis, tends to flood the lung due to overactivity of the right ventricle, and the respiratory distress is precipitated.

With failure of the right ventricle, congestion in the systemic circulation occurs. This is accompanied by engorgement and visible pulsations in the neck veins with the individual in the upright position, cyanosis, dependent edema, enlarged liver and albuminuria. In primary failure of the right ventricle, the primary pulmonary lesion often interferes with the hemorespiratory function producing a cyanosis out of proportion to the dyspnea.

Since arterial hypertension, aortic valve disease and myocardial infarction are relatively more common than are mitral stenosis, congenital pulmonary narrowing and chronic pulmonary disease, failure of the left ventricle as a primary manifestation of myocardial insufficiency occurs more often than failure of the right ventricle. However failure of the right ventricle is most commonly the result of insufficiency of the left ventricle and the resultant back pressure in the pulmonary circulation. Thus it follows that the clinical syndrome of congestive heart failure usually represents failure of both ventricles, failure of the left ventricle having preceded failure of the right ventricle for a variable length of time and is manifest usually by symptoms rather than signs.

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*Read before the Regional Meeting of the American College of Physicians, March 29, 1947.

EDEMA

Recently attention has again been directed to the pathogenesis of cardiac edema. The sequence of events which lead to its development are not clearly understood.

The theory of "back pressure" appears more nearly correct than does that of "forward failure." Convincing argument has been set forth in support of the "back pressure" theory and it does explain most of the clinical phenomena. The absence of edema in left heart failure is good evidence that the circulatory retardation is not an important factor. There is no doubt however, that forward failure of the heart does occur. The most striking instances of such failure occurs in vascular collapse, syncope, shock and certain rare instances of paroxysmal tachycardia in which decreased cardiac output is occasioned by the diminution in the volume of the venous blood returning to the right auricle, consequent to the fall in venous pressure.

In myocardial failure, there appear to be a varying proportion of the symptoms due respectively to the back pressure effects and to the forward failure of the circulation. Terminally it would appear that failure to maintain forward movement produced death, but the predominating symptoms before the terminated state appear to be usually due to back pressure.

Warren and Stead⁽²⁾ produced evidence of congestive heart failure by feeding salt to compensated cardiac patients while at rest in bed. They found that in these patients, gain in weight and edema preceded an increase in the venous pressure. They postulated that the failing heart diminished renal execretion of sodium and water, thereby increasing the blood volume resulting in edema and a subsequent rise in venous pressure. Because edema occurred before the rise in venous pressure they reasoned that the disturbance in kidney function is related to the decreased cardiac output and not to renal engorgement.

Reichsman and Grant⁽³⁾ in their studies attempted to determine whether the venous pressure or the weight rose first as a patient went into cardiac decompensation, by withdrawing digitalis. They found that after discontinuing digitalis, a considerable rise in venous pressure occurred with little or no gain in weight. They analyzed the work of Warren and Stead and they felt that the weight gained at the onset of their experiments might well have been the result of replacement of water and salt in a dehydrated person. They concluded that the main factor in the production of cardiac edema is the increase in venous pressure.

The most widely accepted explanation is that cardiac edema results from an increase in the filtration of water and electrolytes through the capillaries into the extracellular spaces. This occurs secondary to a rise in the hydrostatic pressure within the capillaries and elevated venous pressure. Increased capillary permeability resulting from a decrease in colloidal osmotic pressure of the plasma plays a minor role. Certainly the formation of edema in congestive heart failure is not a simple process and at the present time cannot be explained on one theory or one single factor.

WATER BALANCE

Water consumption in the presence of edema has long interested clinicians. It is probably in the field of water balance that the greatest recent advances have been made.

An increase in body fluids occurs only if water and electrolytes are together. There must be sodium salts available to accompany the water into the tissue spaces. It has been reported many times in the past and recently demonstrated in the laboratory that edema will not be increased by water alone unless the edema fluids are dehydrated⁽³⁾. The regulating ability of the body to keep the amounts of its fluids and electrolytes within certain bounds is lost during heart failure. Excess water even when the kidneys are diseased is promptly unloaded in the urine. Apparently there is something concerned with kidney function and the maintenance of the sodium, a function residing in the tubules that is of considerable importance in congestive heart failure.

Despite the accumulating evidence concerning the role of salt restriction in maintaining proper water balance in the body, its importance in the treatment of congestive heart failure has been only recently recognized. Although the Karrell⁽⁴⁾ diet consisting of 600 cc. to 800 cc. of milk containing approximately 1.5 grams of salt has long been used, its beneficial effects were usually ascribed to the fluid restriction rather than the low sodium content.

In 1909, Achard and Loeper⁽⁵⁾ fed salt to decompensated patients and noted that the excess salt was not excreted in the urine and that blood sodium did not increase. They concluded that the ingested salt contributed to the edema. The relationship of electrolyte and fluid balance and the importance of restriction of salt as a means of controlling edema was well demonstrated by the work of many subsequent investigators notably Gramble(6), Peters and Van Slyke(7), Newburgh(8), and others.

In 1914 Schroeder(9) showed that in patients with congestive heart failure the restriction of salt was important and if the intake of salt was held at a low level, the intake of water could be raised to as much as four liters a day without producing edema. Schemm in 1942(10) and subsequently, reported his results in a large series of patients with edema and cardiac disease to whom he administered large amounts of water with regulation of sodium. In addition he fed a neutral or acid ash diet or administered acid drugs. He found that "Water intoxication" did not occur and that the results were superior to those obtained from restricted fluid regimes. Edema was frequently controlled which could not be controlled by the usual measures of digitalis administration, moderate salt and fluid restriction and diuretics. He states, "Less than enough water-leads to dehydration; any reasonable amount more than enough does no harm." He believes in giving water up to 4,000 cc. or even 8,000 cc. depending on the hydration of the patient, provided that the sodium in the diet is properly controlled.

Wheeler and his associates(11) in a recent study, express the opinion that the optimum intake of water on a diet low in sodium has not been established but that it is evident that patients with congestive failure tolerate comparatively large amounts of fluid as long as the intake of salt is kept at a low level. They did not observe definite benefits from forcing fluids beyond three liters a day, but allowed their patients to drink water as they wished, advising an intake of at least two liters a day.

The regime even when liberally applied has certain disadvantages. The diet is difficult to follow away from an institution or the home. The flat taste of the food is quite objectionable and may discourage many patients from following it closely enough to be effective. Sodium depletion which one might expect, occurs only very rarely. Certainly fluid restriction as practiced in the past, is wrong.

DIGITALIS

It has long been an accepted fact that digitalis has the ability to increase the tone of the myocardium and the force of systole. Only during recent years has it become established that the effect of digitalis on the dilated heart of myocardial failure is different from its effect upon the output of the normal heart. It seems to have been proved that it decreases the mechanical efficiency of the normal heart by about 30 per cent. No doubt exisits that the failing heart is able to perform more effectively under its influence. In the failing heart, the length of the cardiac muscle is increased and it is believed that dilatation beyond the physiologic limit may be relieved through an increase in tone. Therefore the change in cardiac output which results from the action of digitalis depends to a large extent upon the initial size of the ventricular chambers. Digitalis increases the strength and efficiency of the heart muscle, it produces a more complete emptying, and a shortening of systole.

Gold and his associates(12) consider that the primary mechanism by which digitalis relieves heart failure is an increase in the systolic force measured by its tension as a result of a direct action on the heart muscle, and that most of the other significant changes in the heart and circulation which occur in patients with heart failure after digitalis administration follow as secondary adaptations.

The bulk of evidence seems to be against therapeutic doses of digitalis having any direct effect on the blood vessels. Also it seems quite generally agreed that the diuresis produced by digitalis in congestive heart failure is secondary to improvement in the circulation, since in the absence of heart failure, digitalis is not capable of producing diuresis.

In 1785, William Withering(13) first advanced the rule regarding the use of digitalis in heart disease. The principle of dosage which he proposed, "Let it be continued until it acts either on the kidneys, the stomach, the pulse, or the bowels; let it be stopped upon the first appearance of any one of these effects," with few modifications still holds good.

There is usually a fairly wide margin between the therapeutic dose and the toxic dose. As myocardial failure progresses this margin narrows until the two levels approximate each other and finally digitalis therapy becomes futile. In this connection it is well to bear in mind that in the aged and the very young, this margin is considerably narrowed.

Much experimental work has been done in recent years on digitalis preparations and many reports have appeared on new purified preparations of the drug. The U. S. P. unit of potency has been revised and changes have been made in the method of assay as well as in the strength of the official preparations. Considerable confusion has arisen regarding the choice and dose of digitalis substances. The various trade names given to these preparations and the detail men of the pharmaceutical houses each exploiting his particular preparation have added to the confusion.

It is important to know the digitalis preparation one is using, since the clinical effects of digitalis standardized according to U.S.P. XII is approximately 25 per cent weaker than U. S. P. XI, which in turn is approximately 50 per cent stronger than U. S. P. X. The isolated digitalis principles are being used more extensively in clinical practice. The purified glucosides of the digitalis group for both oral and intravenous use are urginin, cedalanid, digilanid, digoxin and digitoxin. Absorption differences account for a wide range in potency in these preparations. Qualitatively, they all behave much alike and their effects are practically indistinguishable from those of the crude digitalis leaf. The amount required to produce therapeutic effect and toxic effect does not differ materially from one preparation to another. There are, however, quantitative differences which pertain to potency, degree of absorption, speed and duration of action. Digoxin, the glycoside isolated from lantoside-C is valuable for rapid digitalization. Digitoxin, sold as such, or as Purodigin, Digitalis Nativelle, or Crystodigin, appears to be the glycoside of choice for the routine treatment of cardiac failure. It is a pure chemical that is stable and does not require bio-assay. It is almost completely absorbed from the gastrointestinal tract so that a given does produces as much effect by mouth as by vein. The basis of dosage adjustment is that digitoxin is 1,000 times as potent as the current U.S.P. digitalis by oral administration, i.e. 1 mg. of digitoxin produces the same effect as 1 mg. of standardized digitalis powder.

The need for intravenous digitalis is infrequent. Perhaps it should be reserved for cases of extreme urgency, such as pulmonary edema resulting from acute left ventricular failure, or for cases in which oral administration would be difficult because of coma, vomiting or other special factors. With our increased knowledge of the use of digitalis, it becomes more important than ever that we be familiar not only with the various pharmacopoeial preparations but that we be especially familiar with the use of the particular preparation employed. We should also have a sufficient knowledge of the quantitative variation in the action of the various preparations and the method of their administration, so as to permit a reasonable flexibility in the selection of the one best suited to the need of the patient.

MERCURIAL DIURETICS

The mercurial diuretics represent one of the most noteworthy advances in cardiac therapy in the past two decades. Because their use is so frequently reserved for cases in which frank edema is present, their potentialities are only partially exploited.

In congestive heart disease, edema of the lungs producing shortness of breath upon effort, cough and orthopnea may appear long before the usual clinical signs of pulmonary rales and pitting edema occur. These patients make up the largest group of potential beneficiaries of the mercurial diuretics. Also, a maintenance dose to prevent recurrence of failure represents a rather recent thought in cardiac therapy. Action of these preparations centers mainly upon the kidney tubules, and temporarily inhibits their normal reabsorbing powers. Thus the total kidney output is increased since a larger quantity of the glomerular filtrate is available for excretion. Albuminuria consequent to chronic passive congestion is not in itself a contraindication to their use but in the presence of acute or chronic nephritis with a fixed low specific gravity of urine, their use must be attended with caution.

Salyrgan and mercupurin are perhaps the best available preparations of these drugs. They may be given alone or in combination with theophylline. The combination is more effective than either drug alone, and represents the best diuretic now available for most patients whose edema is due to heart failure. They are relatively non-toxic and may be given intravenously or intromuscularly. Rectal suppositories containing these preparations are also available and recently several clinics have reported on the use of both preparations by mouth(14-15). No severe toxic reactions have been reported but nausea, vomiting and diarrhea do occur. Their action can be augmented by the administration of acid producing salts such as ammonium chloride. It would appear that the importance of the Xanthines has been considerably exaggerated while the power of the mercurials remains unappreciated.

SUMMARY

In closing, it seems worth while to emphasize the importance of revaluating the changing concepts of the pathogenesis and mechanism of cardiac failure and the formation of cardiac edema.

It is essential that the physician recognize the rationale of salt restriction in the maintenance of water balance, that he be more expert in the use of digitalis and its various preparations, and that he more fully appreciate the benefits of the mercurial diuretics. He should remember, however, that they are only part of the successful management of this disorder, which also includes rest, sedation, Xanthine diuretics, oxygen and psychosomatic therapy.

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CUT IN V. A. BUDGET THREAT TO QUALITY OF MEDICAL CARE

Recent reduction by the Bureau of the Budget of the amount requested by the Veterans Administration to meet its needs "seems to threaten alarmingly" the quality of medical care for the veteran, according to an editorial in the May 24 issue of The Journal of the American Medical Association.

The editorial states in full:

"The tremendous advances made in the quality of medical services of the Veterans Administration in the past two years reflect the devotion of the new leaders to their ideals and the cooperation of the medical profession. When the war ended many physicians who could have returned to lucrative practice with full satisfaction for a duty well done elected to continue beyond the ordinary call of duty through service in the Veterans Administration. The enlistment of medical leaders meant more than appears on the surface, for it aided in causing many younger physicians to join the staff of the Veterans Administration. Thus the veteran himself benefited by the improved quality of medical personnel; less than 6,000 hospital beds have been closed for lack of staff. Even the closing of these beds was serious, but not nearly as serious as would have been the case had this program not advanced so well. Though the program was expanding in quality as well as in the number of patients to be served, the pace was maintained. An extensive outpatient program and a series of clinics were added, 25 per cent of whose patients would have otherwise had to seek hospitalization, even though outpatient treatment was more appropriate. The recent reduction by the Bureau of the Budget of the amount requested by the Veterans Administration to meet its needs seems to threaten alarmingly this whole achievement. Already the morale of staff is disturbed. The quality of service rendered by the Veterans Administration is today a leaven for the whole country. The budgetary needs to maintain that quality should be met to the full if far reaching disastrous effects are to be avoided."

The Scalenus Anticus Syndrome

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Consideration of the scalenus anticus syndrome in this symposium involves discussion of certain facts and syndromes associated with compression of the bachial nerves and plexus and the subclavian vessels. Among the factors which are known to compress the brachial plexus mechanically are cervical ribs, tendinous bands, the anterior scalenus muscles, the normal first rib, compression of the plexus between the normal first rib and the clavicle and compression between the coracoid process of the scapula and the stretched pectoralis minor muscles when the patient's arm is hyperabducted. The subclavian artery can be compressed in all these situations, since it lies in juxtaposition to the lower brachial trunk and immediately behind the insertion of the scalenus anticus muscle on the first rib. The subclavian vein too can be similarly affected in all cases except those of the scalenus syndrome since the subclavian vein lies anterior to the anterior scalenus muscle and is separated by it from the subclavian artery and brachial plexus. Careful evaluation of the signs anl symptoms in the case of pain in the shoulder or the arm is clearly necessary both preoperatively and at the operating table to differentiate the characteristic findings in these various syndromes. Thus x-ray should be undertaken of the neck and shoulder to reveal the possible presence of a cervical rib, with which symptoms are more easily identified.

Relatively few cervical ribs are symptomatic. Out of 540,000 histories reviewed by Adson, only 303 cervical ribs were found and of this number only 36 were subjected to treatment. Adson and Coffey were the first to demonstrate surgically that division of the scalenus anticus muscle was sufficient to relieve the compression on the brachial plexus and the subclavian artery in the presence of cervical rib, and published their observations in 1927. Naffziger, who was able to identify the symptoms of cervical rib in the absence of such finding, was able to show that relief of symptoms resulted when the anticus muscle was subdivided and he called it the scalenus anticus syndrome. Ochsner, Gage and De Bakey published a paper in 1935 in which they gave full credit for the scalenus anticus syndrome to Naffziger, and further established the fact that the presence of cervical rib was not necessary in the production of brachial and subclavian artery compression. These authors were of the opinion that since the symptoms usually do not appear until adult life, contraction and spasm of the scalenus muscle which results from irritation and stimulation of the brachial plexus, some of the fibres of which supply the scalenus muscles, produce an abnormal elevation of the first thoracic rib.

This abnormal elevation of the first thoracic rib in turn causes greater irritation and stimulation of the brachial plexus and thus establishes a vicious cycle. Ochsner and his associates reported the observation of a sudden and marked descent of the first rib when the spastic scalenus anticus muscle was divided. Todd suggested that the symptoms are due to a sinking of the shoulder girdle. He pointed out that the outer end of the clavicle descends further in women than in men and that symptoms attributable to pressure on the lowest brachial trunk are most likely to occur among women at the commencement of adult life. Adson believed that the scalenus anticus muscle was the important structure in the production of symptoms of cervical rib, and that whether the cervical rib is present or not the muscle produces compression of the subclavian artery and brachial plexus and that during the height of muscular development the scalenus anticus muscle compresses the subclavian artery and lowest trunk of the brachial plexus to a greater degree than during childhood or the later periods of life. During the period of greatest muscular development the individual carries out the greatest physical effort and thus places a greater strain on the shoulders. This strain in turn causes the shoulder girdle to drop. Adson, therefore, explains the frequency of right sided symptoms in the presence of bilateral ribs as most persons are right handed and thus tend to lift heavier weights with the right hand. The absence of symptoms in the presence of cervical ribs is due to a variation in the manner in which the tendon of the scalenus anticus muscle is inserted. The insertion is invariably wide in cases in which symptoms appear and in cases in which symptoms are absent it is more medial and in a narrower band which affords a wider space between the lateral border of the scalenus anticus muscle and the cervical rib. Yeager reported, as the result of anatomic studies made on the scalenus anticus muscle, that among twenty-seven cadavers dissected, there were eight instances of scalenus anticus major and minor. This anomaly was found bilaterally five times and was unilateral in three. In two instances the brachial plexus was found to pass through the fibres of the scalenus anticus muscle. These findings may have a direct bearing upon the etiology of the scalenus anticus syndrome.

Trauma also, whether applied indirectly or directly, is responsible for a certain number of cases of scalenus anticus syndrome. Jelsma in analyzing 194 cases showed that trauma was a predisposing cause in 31%. Falls accounted for 59%, being struck by heavy objects 17%, car accidents 13%, and twists and sprains 11%.

A lad seventeen years of age in carrying a 75 pound cake of ice on his shoulder suddenly developed numbness in his right arm. Subsequent examination and diagnosis and operation revealed the presence of pressure on the brachial plexus due to a thickened and tense scalenus anticus muscle. Another case where a severe injury was sustained to the neck and left shoulder region while playing football, produced transient numbness and pain in the arm. Subsequent operation revealed the presence of depression of the shoulder and a fibrous band was sectioned along with the scalenus anticus muscle with complete relief of symptoms.

Since the production of symptoms of cervical rib and scalenus anticus syndrome are practically the same and involve the compression of the nerves and artery, we would expect a great similarity in the symptoms as well as variability. The variability is dependent upon the degree of compression and may be extremely dissimilar in similar cases. The symptoms referable to direct involvement of the brachial plexus are of the greatest diagnostic importance. Usually the lower cord of the plexus is involved alone or most severely. For this reason the pain, paresthesia and the various degrees of sensory impairment are most apt to affect the ulnar distribution or the dermatones of the cervical eighth and the dorsal first nerve, and if present in the median and radial distribution also, will be most severe in the ulnar. Correspondingly the small muscles of the hand, the flexors of the fourth and fifth digits, the flexors of the remaining digits and the flexors of the arm, are usually involved approximately in this order before the extensors become affected. The pain is usually felt along the inner side of the arm over the distribution of the internal cutaneous, ulnar and median nerves, but occasionally over the distribution of the entire brachial plexus in the region of the shoulder, arm, forearm, hand, scapula, neck and thoracic wall. Later muscular atrophy, motor weakness and disturbances in sensation and symptoms of circulatory inefficiency develop. The pain may be sharp, spasmodic and lancinating, like an electric shock, and brought on by sudden rotation of the head or by forceful downward pull of the shoulders. Also, it may be a dull aching, burning, dragging or boring pain which occurs during the latter part of the day or at night. Sweeping, lifting, carrying heavy objects, reaching for objects at a higher level are especially difficult. Compression of the subclavian artery in the scalenus anticus syndrome often give rise to signs or symptoms helpful in diagnosis. Frequently an arterial bruit can be heard in the supraclavicular space, and the systolic blood pressure can be found to be 10-15 mm of mercury lower on the affected side and the pulses in the affected extremity may be more easily obliterated than in the normal person by various maneuvers. Thrombosis of the subclavian artery or vein and gangrene of the finger tips resulting from the compression of blood vessels in the syndromes, is rare. The pulse may manifest certain variations and changes under the influence of one or several maneuvers such as a. the forceful downward pull of the shoulder; b. the forced hyperextension of the head with flexion toward the affected side; c. pressure exerted over the scalenus anticus muscle which obliterates the pulse. Often this pressure may be slight to be sufficient to produce this result. However, one must be careful in evaluating this finding since the pulse, in many normal individuals can be obliterated in this same way. Several authors have suggested that scalenus muscle tenderness in the supracavicular space was of great importance diagnostically and often quite a constant finding. The two sides could be compared for their relative sensitivity to pressure. Often this maneuver also would produce radiation of tingling or pain down the arm, usually in the ulnar pathway.

Intermittent obstruction of the subclavian vein has been observed and the obstruction has been attributed to pressure by the scalenus anticus muscle. This is doubtful since the vein lies anterior to the insertion of the scalenus muscle in the scalenus tubercle of the first rib. However, McLaughlin of Omaha, has reported a case in which scalenotomy effectively removed the obstruction to the subclavian vein. Love of the Mayo Clinic, has also seen a number of these cases, and states that the obstruction to the venous return has responded well to scalenotomy. Undoubtedly, in these cases, the scalenus anticus muscle exerts an undue upward pressure on the first rib causing an angulation and obstruction to the vein. Reed in 1938 reported four patients in whom a diagnosis of coronary thrombosis and angina pectoris had been made. After thorough investigation of the precordial pain with radiation into the arm, a diagnosis of cervical rib and scalenus anticus syndrome was made in each case. Surgical interference provided complete cure of these patients.

Pommerenke and Risteen report four cases of scalenus anticus syndrome following the use of the Trendelenburg position in gynecologic surgery. Two of the four patients were operated upon for relief of the pain and discomfort. The injury to the scalenus anticus muscle is produced by the shoulder braces and especially when one arm is abducted as for intravenous fluid administration during the operation. The head, too, is hyper-extended during the administration of the anaesthetic.

Every patient presenting suspicious symptoms, at times, of scalenus anticus syndrome should be examined in the following order:

1. Palpation of the supraclavicular fossa, in an attempt to detect any difference in the prominence of the structures in the fossa and the presence or absence of abnormal structure such as cervical ribs.

2. Inspection of the shoulder girdle for evidence of sag or abnormal depression or bony prominence.

3. Pressure exerted over the scalenus anticus muscle may reveal marked tenderness in the muscle with extension of the pain down the ulnar side of the arm. The Adson maneuver should be carried out. This consists of elevating the chin and rotating the head to the affected side while the radial pulse is palpated. The pulse may be decreased in volume, or even obliterated, by means of this procedure, especially when deep inspiration is carried out at the same time.

4. X-ray examination of all suspected lesions should be undertaken to determine whether or not a cervical rib is present or an abnormal first rib is present, or, if any underlying bony abnormality exists in the shoulder girdle. Also carcinoma of the apex of the lung may be determined by x-ray examination and in several cases symptoms simulating the scalenus anticus syndrome have been reported.

5. Sensory examination of the arm and hand should not be overlooked since partial or complete loss of sensation often develops in the ring and little finger as an early symptom.

6. Muscles of the upper extremity and hand should be examined to detect the presence of any weakness or atrophy or fibrillary twitching.

7. Injection directly into the muscle of 1% Procaine solution as developed by Gage should be performed as an important diagnostic aid before surgery is undertaken.

Semms and Murphy, in 1943, reported four cases of unilateral rupture of an intravertebral disc, two of whom had been diagnosed elsewhere as scalenus anticus syndrome. They pointed out that rupture of a cervical disc will cause spasm of the scalenus anticus muscle and the relief of the symptoms following section of the muscle in such cases might be explained on the same basis as the relief of pain from the Ober Fasciotomy in the case of ruptured disc in the lumbar region.

Rickard of San Francisco, Journal of the A.M.A., Vol. 118, January 24, 1942, reported the relief of symptoms by non-surgical means in 60 of 74 patients. He stated that pulling or pressing the affected shoulder downward, bending the head and neck to the opposite shoulder, turning the head to look over the affected or the opposite shoulder, pressing the affected arm against the chest with the shoulder depressed and throwing the shoulders and head back, are other methods of aggravating the complaints and confirming the diagnosis.

Relief of symptoms during examination would follow the shrugging of the affected shoulder, shrugging the shoulders and bending the head and neck forward and bending the head and neck to the affected side. Non-surgical management consisted of variations of the following regime, depending on the severity of the symptoms:

1. Elevation of the shoulder by a sling or by holding the hand across the chest in the fold of a buttoned shirt or coat.

2. Elimination of the type of work that aggravated the symptoms, and

3. A change in sleeping habits.

Two-thirds of the 74 patients complained that their symptoms were worse, or at least severe, during the night. The patients were instructed to sleep on three pillows arranged to throw the shoulders and head forward.

Another mechanism introduced by Wright as the subcorocoid pectoralis minor syndrome, is also capable of producing clinical pictures simulating scalenus anticus syndrome and are produced by hyperabduction of the arms over the head producing parasthesia and even gangrene of the finger tips.

In a later study Wright was able to show that the radial pulse of 125 could be obliterated on the right side and the radial pulse of 124 on the left side by hyperabduction in 150 normal subjects. In a cadaver study, Wright found that the axillary artery, subclavian and axillary vein and the brachial plexus were compressed beneath the corocoid process of the scapula by the stretched pectoralis minor muscle when the arm was hyperabducted.

Falconer and Waddel brought out the fact that compression may be exerted between the first rib and the clavicle producing symptoms identical to those of scalenus anticus syndrome. Four patients in whom the latter diagnosis had been made and were operated upon, were not relieved either of their physical symptoms and obliteration of the radial pulse on the operated side was still possible after operation. Searching further they found that hyperextension of the patient's neck by elevating the first rib, narrowed the space between the first rib and the clavicle. The symptoms were entirely relieved on resection of 2½ cm. of the first rib at the point of compression and hyperextension with shoulder pushed back did not affect the pulse of the extremity following resection of the rib. In two similar cases it was found that Faradic stimulation of the anterior scalenus muscle to contraction had no effect on the pulse of the extremity although the patient bracing the shoulders backward and downward caused obliteration of the pulse. Also it was noted that the latter maneuver produced engorgement of the superficial veins of the affected extremity and the chest. Asymmetry of the thoracic outlet or deformity of the clavicle might predispose to costal clavicular compression.

DIAGNOSIS

The diagnosis of scalenus anticus syndrome should not be made on the basis of snap judgement since Eaton and others have pointed out the many failures of the scalenus anticus era. Aid in diagnosis should be obtained, if possible, from the orthopedic and neurologic departments so that gross mistakes may be avoided and the patient extended an earlier opportunity for cure.

The diagnosis is based on the history of pain in the distribution of the lower cords of the brachial plexus, atrophy or weakness of the muscles of the hand especially the fourth and fifth fingers and diminution of power or grip, circulatory abnormalities, disturbances of sensation and paresthesias or anesthesias in the upper extremity, and reduction or obliteration of the radial pulse when the scalenus anticus muscle is put on stretch by various maneuvers.

TREATMENT

Relatively few patients with cervical ribs require operation. Others with mild symptoms are often benefited by conservative measures as Reichert has shown. The approach for cervical rib or section of the scalenus anticus muscle is just above the clavicle and the former involves far less risk of damage to the brachial plexus.

DESCRIPTION OF OPERATION

Incision of the skin fat and platysma one inch above the clavicle in the lines of the skin of the neck for a distance of approximately three inches, is made. The lateral border of the sterno-cleido-mastoid muscle is dissected free and the fat and areolor tissue of the supra-clavicular triangle is incised and reflected laterally: the omo-hyoid muscle may be divided or retracted upward. At this level the carotid sheath and vessels are exposed medially, the anterior scalenus muscle is identified by the phrenic nerve traversing the surface of the muscle from a lateral to a medial position. The scalenus muscle is dissected free at its insertion into the scalenus tubercle of the first rib. Great care is required on the left side in avoiding injury to the thoracic duct and the pleura which lies immediately below. Tenotomy is performed through the tendinous portion just above the rib. Observation at this point may be made of the caliber of the subclavian artery and the degree of compression present. The width of the clavicular attachment should be noted since the degree of compression is directly proportional to the width of the muscle insertion. Tendinous bands, cervical ribs, divided muscle enclosing portions of the plexus, elevation of the first rib or other anatomical variations which might be factors in production of compression symptoms, should be looked for and the appropriate treatment applied.

Excellent results may be obtained in carefully selected patients who have scalenus anticus syndrome but in borderline cases with many functional symptoms or those in litigation, results may not be satisfactory.

FOR SALE — Doctor's equipment including 12 steel overbed tables, electric incubator, 12 crank beds, 5 crib bassinettes, oxygen equipment, bedside tables, etc. Apply Mrs. Ida Murphy, Harlan, Iowa. Telephone 464.

FOR SALE—Office equipment of the late Dr. Dermody. Call Mrs. Dermody, ATlantic 4980, Omaha.

Management of Urinary Tract Emergencies by the General Practitioner*

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Part II

ACUTE URINARY TRACT INFECTIONS
RENAL INFLAMMATIONS

Pyelonephritis may be defined as a bacterial infection of the kidney involving the parenchyma and pelvis. The bacteria may reach the kidney by way of the blood stream, lymphatics, or by reflux from the bladder. Foci of infection elsewhere in the body such as in teeth, tonsils, skin, bone, and cervix have been described as contributing factors. Any cause for urinary stasis or intrinsic organic lesion of the urinary tract brings increased susceptibility to infection. In descending order of frequency the following bacteria were found to be the causative agents in a recent series of 100 patients with urinary tract infection: E. coli, streptococcus faecalis, staphylococcus albus, staphylococcus aureus, non-hemolytic streptococcus, aerobacter aerogenes, pseudomonas aeruginosa, streptococcus viridans, B. mucosus capsulatus, streptococcus hemolyticus and B. proteus.

Diagnosis of the emergency of acute pyelonephritis is made from fever, with or without chills; frequency of urination; burning; and tenderness on palpation in the renal area. There may be rapid pulse, nausea and vomiting, and if the ureter is obstructed typical reno-ureteral colic. Pyuria is present, unless there is complete block of the ureter. Although chronic pyelonephritis is not to be considered an emergency the importance of investigation and determination of the cause of the pyuria cannot be over-emphasized.

The immediate attack may respond to bed rest, sulfadiazine, penicillin, diuresis, and catharsis. Where there is obstruction of the urinary tract, indwelling catheter drainage is exceedingly helpful in tiding over the emergency. The fundamental objective of treatment is the removal of the mechanical cause which predisposed to the development of the infection.

Differential diagnosis is made as soon as the acute symptoms have subsided by investigation including cystoscopy, ureteral catheterization, x-ray of the abdomen, and retrograde pyelographic study. Mechanical obstructions and organic lesions should be watched for carefully. Further treatment is dependent on the findings resulting from the complete study. Patients with pyonephrosis should be nephrectomized; those with infected hydronephrosis require removal of the cause of the obstruction or nephrectomy; renal carbuncles require nephrectomy or incision and drainage, and perinephric abscesses must be drained.

ACUTE CYSTITIS

Acute cystitis is a bacterial infection of the bladder which may or may not be associated with upper tract infection. As is the case with pyelonephritis, foci of infection and (mechanical) obstructive cause of other organic lesions are frequently the predisposing factors which precipitate the acute attack. Colon bacillus is the most common pathogen, but staphylococcus, streptococcus, and B. proteus are also common.

The emergency is diagnosed from the complaint of urinary frequency, urethral burning, urgency, and sometimes hematuria, and tenesmus.

The acute condition may be controlled with penicillin, sulfadiazine, and local bladder instillations or irrigations. When the acute inflammation is under control complete investigation, including cystoscopy, ureteral catheterization, x-ray of abdomen, and retrograde pyelographic study should be done. Organic lesions along the tract and causes of stasis must be found in order to prevent subsequent attacks.

Whereas the upper tract is frequently considered the primary source of cystitis, the relatively frequent occurence of acute cystitis in females paves the way for speculation that the short urethra may predispose to ascending infection.

ACUTE PROSTATITIS

Acute prostatitis is a bacterial inflammation of the prostate gland due to the gonococcus or any of the non-specific urinary pathogens among which colon bacillus, staphylococcus, and streptococcus are the most common invaders.

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The emergency includes severe burning, tenesmus, frequency, urgency, pain deep in the perineum, and fever. The urine is cloudy in both glasses. Examination shows a tender indurated prostate gland. Treatment includes penicillin, sulfadiazine, and massage. Anterior-posterior irrigations have proved their value.

Acute prostatitis must be distinguished from prostatic abscess as the treatment is different. The development of a prostatic abscess is indicated by deep boring pain which the patient locates in the rectum, and by increasing urinary obstructive symptoms not infrequently resulting in complete urinary retention. Although prostatic abscess may rupture spontaneously into the urethra, by far the best method of treatment is by open perineal dissection under caudal anesthesia, thereby establishing adequate surgical drainage.

ACUTE EPIDIDYMITIS

Acute epididymitis may be due to the gonococcus or to other common pyogenic organisms, occurring as a very common preoperative or postoperative complication of prostatism. This inflammatory process is characterized by a rapidly developing, exquisitely painful induration of the epididymis soon followed by edema of the tunic and subcutaneous tissues and redness of the skin. There may be an associated inflammatory hydrocele.

The emergency is treated by bed rest, scrotal support, sulfadiazine, and penicillin. The tendency is toward spontaneous recovery over a period of several days. The induration subsides more slowly than the pain and temperature. Suppuration involving the soft tissues as well as epididymis may occur in severe cases. Incision and drainage, or preferably radical excision of the entire inflammatory mass including testicle may be necessary.

URINARY TRACT TRAUMA

RENAL TRAUMA

Injuries to the kidney usually follow a severe blow delivered in the renal region and transmitted to the kidney, as occurring in falls, and in automobile, athletic, industrial, and farm accidents. Penetrating injuries from gun-shot or stab wounds may occur. The degree of injury may vary from a slight tear in the renal capsule to severe parenchymal damage.

Diagnosis of the emergency is made by history of the injury and such symptoms as hematuria, loin pain, progressively enlarging loin mass, abdominal rigidity, and possibly shock. Supplementing the physical examination intravenous urography is often helpful. This condition must be differentiated from intraperitoneal injuries such as rupture of the spleen, liver, or hollow viscus. Ureteral catheterization and retrograde pyelographic study are not investigations of choice because of the danger of introducing infection.

The emergency is treated by careful observation and investigation and usually resolves itself into either nothing at all or nephrectomy. It should be noted that even with extensive laceration the hemorrhage is usually held in check by the pressure exerted by the large hematoma which is restrained by the renal fascia. Pulse rate, blood count, blood pressure and the amount of hematuria should be followed closely. If symptoms do not subside exploration of the loin space with a view to possible nephrectomy should be done.

URETERAL TRAUMA

Although ureteral injury is possible as the result of penetrating wounds or cystoscopic manipulation (instrumentation) the ureteral lesion which comes to the attention of the urologist with by far the greatest frequency is that occurring accidentally during gynecological surgery, and often unavoidably, even in the best of hands. Bilateral ureteral ligation occurring during hysterectomy inevitably results in complete urinary suppression, whereas unilateral ligation might pass unnoticed. The usual result of ureteral injury during hysterectomy is ureterovaginal fistula, requiring detailed and careful investigation to distinguish between uretero- and vesicovaginal fistula.

Intravenous urography, cystoscopy, ureteral catheterization, and retrograde pyelographic study are usually necessary to establish the site of the injury.

The emergency is treated by ureteral catheterization and indwelling ureteral catheter drainage if possible, as soon as the lesion is recognized, with the hope of spontaneous closure. A favorable outcome such as this, however, is the exception rather than the rule. These situations usually require correction by major surgical procedures such as ureterovesical implantation, ureterosigmoid anastomosis, or nephrectomy. The last named is the method usually employed as the easiest way out. In the case of bilateral obstruction and critical illness the emergency may be tided over by temporary nephrostomy or pyelostomy, pending plastic repair. We have recently accomplished successful endlateral, left to right ureteroureteral anastomosis, in a patient with left ureterovaginal fistula and solitary kidney.

BLADDER TRAUMA

The bladder may be involved in penetrating wounds, as well as crushing injuries associated with fracture of the pelvis. Rupture, which usually results from a direct blow over a full bladder may be either intraperitoneal or extraperitoneal and may result from relatively mild trauma, since the greater the distension, the heavier the viscus and the thinner its wall.

The emergency is diagnosed from suprapubic pain, painful urination or total inability to void, abdominal rigidity, and the shock syndrome. Nausea and vomiting may be present. Whereas certain authors advocate intravenous urography in preference to cystoscopic examination with the thought of minimizing the danger of infection the validity of this argument is open to question. Cystoscopic examination gives an immediate and satisfactory answer as to the presence and extent of bladder laceration. In the absence of bladder laceration no harm has been done, and with existing laceration the question of infection becomes a matter of secondary importance as immediate surgical operation is indicated.

Unless treatment is instituted within the first twenty-four hours after injury the prognosis is grave. In addition to measures directed toward the alleviation of shock, the essential measures consist of suprapubic exploration with repair of the defect and drainage of the bladder and adjacent tissues. The sooner this is done the better the prognosis.

URETHRAL TRAUMA

Urethral injuries may occur from external violence or from faulty instrumentation. In the former group "straddle injury" is seen frequently. (See discussion of urinary extravasation).

The emergency is diagnosed through pain in the perineal area or urethra, hematuria, painful and difficult urination or total inability to void, and tumor formation due to blood and extravasated urine. Secondary infection and even gangrene may develop.

The essentials of treatment consist of diversion of the urinary stream by suprapubic cystostomy and plastic repair of the laceration. If the patient's condition permits and facilities are available, such plastic repair is far better carried out at the time than postponed until the situation has been tremendously complicated by infection and scar tissue. With fresh tissues, resection of the segment of the urethra, which has been crushed against the pubic bone, followed by end to end anastomosis is readily feasible.

In slight injuries conservative treatment is indicated. Sulfadiazine and penicillin are of value in keeping infection under control while the urethra is healing.

TRAUMA TO THE EXTERNAL GENITALIA

Injuries in the form of contusions, lacerations, puncture wounds, torsions, and dislocations may occur to the external genitalia in the male.

The emergency may be diagnosed by history and findings of localized swelling, tenderness, and discoloration with or without open wound.

The emergency is treated by rest, ice pack, and scrotal support if the injury is not severe, but in the presence of extensive injury early surgical repair must be done.

ANURIA

The symptom anuria is evidenced by a cessation of urinary output. It may be classified as pre-renal, renal, and post-renal. The last, made up of ureteral obstructive lesions, is the group with which the urologist is primarily concerned. Urinary stone, sulfonamide crystal agglomerates, and accidental surgical ligation of the ureters during pelvic surgery are the most commonly seen causes of obstructive anuria.

The emergency is diagnosed by the history of absent urinary output. Anuria, or suppression of urinary output, is distinguished from urinary retention by an empty bladder, as determined by catheterization. Differential diagnosis of the nature of the obstructive lesion is made by catheterization, cystoscopic examination, ureteral catheterization, x-ray of abdomen, and retrograde pyelographic study.

The emergency is treated by ureteral catheterization, if technically possible, allowing the catheters to indwell if the obstruction is passed, otherwise immediate ureterostomy or nephrostomy should be done, as the anuria will progress to uremia if not relieved.

UREMIA

Uremia is a clinical syndrome which represents the end stage of chemical imbalance caused by inadequate renal function. As in anuria, uremia may be classified on the basis of pre-renal, renal, and post-renal causes. The end stage of arteriosclerotic cardiovascular disease with inadequate circulation to the kidneys illustrates the pre-renal type, whereas the post-renal or obstructive type is that caused by organic obstruction to urinary flow anywhere in the tract. The latter type is the one in which the urologist is primarily interested. Any obstructive anuria may produce uremia if not relieved.

The emergency is diagnosed by finding the patient with headache, anorexia, nausea, vomiting, twitching, fatigue, drowsiness, weakness, coated tongue, foul breath, irritability, retinal changes, and in advance cases dyspnea, convulsions, and coma. In every patient when history and examination are suggestive of the possibility of an obstructive factor, cystoscopic examination, ureteral catheterization, and pyelographic study should be done.

The emergency is treated, in case there is an obstructive type of uremia, by giving adequate drainage to the upper tract. This may be afforded by ureteral catheterization, ureterostomy, or nephrostomy. If treatment has not been instituted by the time uremic convulsions and coma supervene, there is nothing to do worth doing.

* * *

AIR FORCE DAY

Air Force Day—the fortieth anniversary of the Army Air Forces—will be observed on Friday, August 1, 1947.

PURPOSE

The purpose of Air Force Day is to emphasize the importance of the Army Air Forces in maintaining the security of the United States; to make the public aware of air power as an effective instrument of world peace; to stress the responsibility of the American people in supporting and providing an adequate air force; to explain the vital need for a continuing program of air research and development; to call attention to the Army Air Forces' many contributions to progress; and to honor the men, living and dead, who pioneered the development of air power and who served their country in the air.

THEME

"Air Power Is Peace Power." Each citizen must be informed of the relationship between a strong air force, national security, and the preservation of the peace. Young men who can qualify must be acquainted with the opportunities which the Army Air Forces afford for a career in aeronautics. They must be informed of the possibilities for personal study in civilian academic and technical institutions, as well as the opportunities to learn a trade in the numerous fields of aeronautical science while serving their country.

America must be informed of the benefits that have accrued to the Nation through research and development carried on through the years of peace and war by the Army Air Forces—such as the development of pressurized cabin aircraft; contributions to flying safety through the development of the GCA (Ground Controlled Approach) and other safety systems; the refinement of jet-propelled aircraft; the development of rocket-powered supersonic planes like the XS-1, XS-2, XS-3; discoveries in the field of aviation medicine; and the opening of polar regions to air travel.

Air Force Day will not only stress the importance of the Regular Army Air Forces, but also the significance of the Air National Guard, the Air Reserve and the Civil Air Patrol in providing a trained reserve of personnel for an emergency.

PROGRAM

The Army Air Forces will conduct Nation-wide activities to support Air Force Day, which is sponsored by the Air Force Association, a national organization of Army Air Forces veterans of both wars. These will include Nationwide broadcasts, television programs, public statements and addresses and exhibitions of air power. Much of the activity will be conducted locally, in the cities and towns of the Nation. Exhibitions and demonstrations of aircraft and flying equipment will be included in these local programs. Air installations will have "open house" on certain days which will be announced locally. Many civic, patriotic, and fraternal organizations will join the Army Air Forces in observing the day.

PANEL DISCUSSION ON NEWER DRUGS

Dilantin in the Treatment of Epilepsy*

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A new drug is not necessarily important because it is new unless it offers greater values and is free from dangerous or disagreeable features of other drugs now used in treatment.

The bromides were a new treatment for convulsive seizures in 1857.

In 1912 phenobarbital was advocated and made use of under the name of luminal.

In 1937 Putnam and Merritt (Science, May 25), reported on the anticonvulsive properties of some phenyl derivatives. Electrical experiments with cats were made to determine the threshold for convulsions. Certain sedatives were compared as to their anticonvulsive actions.

In 1938 Dilantin Sodium as used for epilepsy was reported by these authors. Better anticonvulsant effects were described with less hypnotic action than that of drugs previously used.

About this time, considerable study was being made of encephalography of normal and of epileptic individuals. Nearly all patients subject to epileptiform attacks were found to have abnormal electro-encephalograms during the seizure and between attacks. Subjects of petit mal attacks presented electro-encephalograms different from those found in patients with grand mal. This was also true of psychic seizures.

The normal brain waves average about eight per second. Epilepsy is a cerebral dysrhythmia following a fairly definite pattern. Grand mal attacks have fast, high-potential waves. Petit mal attacks are associated with alternately fast and slow waves. Relatives of epileptics may have the same characteristic patterns as the epileptic. This is said to be true of 60% of such relatives. We must keep in mind however, that 10% of those not related to epileptics and with a normal history, have cortical arhythmias.

Spasms themselves appear to be nature's efforts to correct a dangerous cerebral condition by increasing the blood supply of the brain and of the spinal cord. These convulsions in turn cause fasting, dehydration and acidosis, all tending to oppose recurrence of seizures. The Ketogenic diet aids treatment in the same way. Therapeutic convulsions resulting from insulin, metrazol or electroshock therapy in turn are helpful in mental disorders. In such cases restoration of glucose is essential for curative effects.

For the majority of patients, dilantin sodium i.e. sodium diphenyl hydantoinate is better in controlling attacks than are other drugs. This is particularly true for grand mal attacks. Moreover dilantin has a comparatively slight hypnotic effect.

The dosage is 0.1 gm. in capsule three or four times a day for the adult. The total amount should be sufficient to control the frequency of attacks but not so much as will produce side-actions such as gastric irritation, dizziness, skin eruptions or hyperplasia of the gums.

Dilantin sodium may be given also with phenobarbital or with phenobarbital and benzedrine sulfate. Benzedrine sulfate may be used to advantage when the patient has an unusually low blood pressure. This is used in the treatment of narcolepsy and also of cataplexy which may be confused with epilepsy. The epileptic seizure if not due to an abnormal rhythm of the brain waves as shown by the electro-encephalograms, may be well studied by this method. Progress may be shown in succeeding electro-encephalograms.

Epileptic seizures are as a rule easily recognized by the prodromal symptoms, aura, tonic period, clonic spasms and coma, followed by gradual return to normal. The last stage may require many hours.

Unconsciousness is the rule and is an essential criterion in the diagnosis. Sometimes one who has been subject to epileptiform attacks at intervals will have some attacks with no apparent loss of consciousness. In petit mal there is always a brief loss of consciousness with momentary amnesia. This is also true in psychic types of epilepsy. Nocturnal epilepsy includes the cases that have attacks at night. Later on, attacks may occur in day-time, but with most of the attacks occurring at night. In some medico-legal problems, nocturnal epilepsy of long duration may play a part. The nocturnal seizures are kept concealed. Then a day attack occurs which is ascribed to some minor injury. A medico-legal case is thus built up on the assumption of a bona fide injury.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

The personality of a chronic epileptic becomes changed. His thinking is good but slow. We sometimes say that he has a Molasses-in-January type of thinking because his thoughts flow so slowly. While oftentimes he is quite irritable, he is usually devoted to his doctor and to those who are caring for him.

The term "epileptiform attacks" include those seizures which are "symptomatic" of some known disorder such as brain tumor, hypoglycemia, cardiac trouble and hysteria. Other cases may be called "idiopathic" with no known cause. The great majority of these develop before the age of 22. A later onset would suggest syphilis, brain tumor, or penetrating brain injury as a cause.

When a definite diagnosis of epilepsy has been determined it is important to work up to the proper dosage gradually. If luminal does not cause the patient to be drowsy in the daytime and if the seizures are well controlled without toxic symptoms, there is no need for any sudden change in treatment. If however it is decided to replace the luminal by dilantin sodium, this change should also be made gradually. The dose is 0.1 gm. in capsule three or four times a day for the adult. Four to six capsules a day may be needed to stop the seizures. For the child, the dosage is determined according to age and weight. If status epilepticus develops, intramuscular use of sodium luminal proves best.

Gastric distress may prove to be the most disturbing of the toxic effects of dilantin. I have noted skin eruptions but the most common complication has been hyperplasia of the gums. This requires expert dental care, cessation of the use of dilantin for the time being, and the use of Vitamin C.

* * *

Aminophyllin in the Treatment of Asthma*

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Although aminophyllin has been used in the treatment of cardiac conditions for a long time, its use in bronchial asthma is relatively recent. The first reports of its efficacy in the treatment of asthma were published about ten years ago(1,2). It was first used intravenously in the treatment of status asmaticus, in which patients had become refractory to adrenalin. It was shown that aminophyllin effectively relieved the acute attack and, moreover, practically all the cases were restored to their capacity to respond to adrenalin. Since then there have been numerous reports of the use of aminophyllin in the relief of asthma, until today it has become widely accepted as a valuable adjuvant in the treatment of this distressing disease.

There still remains a great deal of confusion as to the exact mechanism by which the drug relieves asthma. Greene and his associates(3) demonstrated a drop in venous and intrathecal pressures along with the symptomatic relief of dyspnea and an increase in vital capacity in tests on persons in cardiac failure as well as patients during attacks of bronchial asthma. Young, Gilbert and Goldman(4,5) showed a direct effect of aminophyllin upon the bronchial musculature. They found aminophyllin to be an effective dilator of bronchiolar sections poisoned by histamine, although it had little apparent effect upon the relaxed bronchiole. Osgood(6), however, suggests that the principal action is the increase of blood flow through the pulmonary and bronchial circulations by vasodilatation and that the bronchodilating effect is of secondary importance.

In the treatment of asthma, aminophyllin may be administered by several routes, each with its own indications for use. The most spectacular results are seen when the drug is given intravenously. This is the method of choice in severe attacks when the patient is under hospital care, especially if he has become refractory to adrenalin. Relief is almost as prompt as that obtained with the use of adrenalin. In about half the cases relief will occur immediately—in others, results may be seen after twenty to thirty minutes. Freedom from symptoms may last from one hour to several days following a single injection. In some, just as with the use of adrenalin, the dose must be repeated after two or three hours. Dosage most commonly used is 7½ grains in 10 cc. of solution, which is readily obtainable in ampule form. There may be distressing side effects, such as dizziness, nausea, vomiting, pounding or burning in the head, a sense of constriction in the chest, or a momentary feeling of warmth in the skin. These symptoms may be minimized by giving the drug very slowly, allowing a full five minutes for the injection. Care must be taken that none of the solution infiltrates into the subcutaneous tissue. Intravenous use of aminophyllin is not completely innocuous; deaths have been reported which may be attributed to the drug(7).

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

For use in the home, the rectal suppository containing 7½ grains of the drug is the most practical method of administration. Relief of symptoms by this method is perhaps a little slower than with intravenous use, but the effect is more prolonged. Most severe asthmatics can be kept free of symptoms using one suppository twice a day. The suppositories too will restore the effectiveness of adrenalin in most patients who have become adrenalin-fast. The effect of aminophyllin suppositories is enhanced by the addition of 1½ grains of sodium phenobarbital to the preparation. These are available in commercially prepared form.

Barach(8) advocates repeated bronchial relaxation by aminophyllin for long term relief of asthma. Aminophyllin is administered as a solution by rectum twice a day for one week and then once daily for a period of one or two months. The same schedule may be followed using rectal suppositories. He reports relief of symptoms for periods of one to three years following this routine.

Oral aminophyllin may be used in mild asthmatic attacks as well as for prophylaxis and for maintaining control after intravenous or rectal administration. Most effective results are obtained by use of a combined tablet containing aminophyllin 1½ grains, ephedrine 3/8 grains, and phenobarbital ¼ grains. This may be given every four hours for ten doses when wheezing or tightness of the chest are first noticed.

There are many instances in which adrenalin is contra-indicated. In patients with hypertension and those with arteriosclerosis the use of adrenalin may be dangerous. Still these individuals may also suffer from bronchial asthma and in those cases aminophyllin is, of course, the drug of choice. Adrenalin is the time honored drug for the relief of asthma and will never be entirely replaced by aminophyllin. However, there are many situations in which the advantages of the latter surpass those of adrenalin, thus making it a very valuable addition to the armamentarium of the physician in affording relief to so many victims of bronchial asthma.

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Office Immunology (including Allergy). Authors: Marion B. Sulzberger, M. D., Professor of Clinical Dermatology and Syphilology and Director, New York Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital. W. C. Spain, M. D., Clinical Professor of Medicine, New York Post-Graduate School and Hospital. Rudolf L. Baer, M.D., Instructor of Dermatology and Syphilology, New York Skin and Cancer Unit, New York Post-Graduate Medical School and Hospital. Abram Kanof, M.D., Adjunct Pediatrician, Jewish Hospital, Brooklyn. Alfred J. Weil, M.D., Lederle Laboratories Division, American Cyanamid Company. Naomi M. Kanof, M.D., Associate Attending in Dermatology, Garfield Memorial and Children's Hospitals, Washington, D. C. 420 pages, including index. Price $6.50. Year Book Publishers, Inc., 304 Dearborn St., Chicago 4, Ill.

Hytakerol in the Treatment of Hypoparathyroid Disease*

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The parathyroid glands, usually four in number, are found on the posterior aspect of the thyroid gland, but this is not a constant finding. In addition, accessory parathyroid tissue may be present in the neck or elsewhere. The total weight of all this tissue is normally about 120 mgm. This endocrine structure secretes a hormone which regulates the calcium metabolism of the body. This is done, however, in an indirect way. The hormone, which has been isolated and to which the name Parathormone has been given, accomplishes its function by lowering the renal threshold for the phosphate ion. This causes an increased urinary excretion of the phosphate ion and a drop in serum phospate follows. With this happening, the serum calcium must be increased in order to maintain the constant mathematical product of the calcium and phosphate ion concentrations which determines the solubility of the calcium phosphate. As a result of the increase of the serum calcium concentration, urinary excretion of calcium becomes greater. Under normal conditions, of course, the renal threshold for the phosphate ion is at such a value that normal calcium and phosphate relationships are maintained. This means a value of 9-11 and 2.5-3.5 mgm. per cent of serum calcium and phosphorus respectively.

With excessive amounts of the hormone, resulting from either experimental procedures or in clinical conditions, we find phosphaturia, calcinuria, hypercalcemia, hypophosphatemia, markedly negative calcium balance, somewhat less markedly negative phosphate balance, possible metastatic calcifications, and varying degrees of certain subjective complaints.

Now let us turn to the condition in which the amount of hormone present is diminished. The disease is recognized as Hypoparathyroidism. It may be the result of either some destructive process in the gland or of surgical removal. The latter may occur inadvertently in thyroidectomy. It may also occur as a temporary "crisis" following removal of a parathyroid tumor; and some sort of therapy will be required until the remaining parathyroid tissue is capable of secreting sufficient hormone to establish normal balance.

The principal manifestation of the parathyroprivic state is tetany. This may be either latent or apparent. When the serum calcium drops to a level of 7-8 mgm. per cent there is an increased neuromuscular excitability with tetany in a latent state; but when the level drops to 5-6 mgm. per cent tetany becomes apparent, with the development of carpo-pedal spasm, laryngo-spasm and convulsions. In either instance urinary excretion of calcium is either markedly decreased or entirely absent. If the tetany is latent, there are certain signs which are diagnostic. In Erb's sign there is a reversal of the normal responses and, in addition, the muscle responds to weaker current stimuli. In Chvostek's sign, spasm is produced by tapping the facial nerve as it leaves through the stylomastoid foramen anterior to the external auditory meatus. In Trousseau's sign a paroxysm is elicited by compression of an extremity either over a nerve trunk or in such a way as to occlude the arterial blood supply.

Associated with the drop in serum calcium, there is, of course, an increase in the serum phosphate levels. And associated with the increased neuromuscular excitability are other symptoms, such as an increase in rate of respiration, fever, etc., which are present in varying degree.

It should be stated, parenthetically, that not all tetanies are parathyroprivic in origin. We shall not enter into their discussion here.

Treatment of the condition is obviously directed toward correction of the fundamental defect and re-establishment of the normal calcium phosphate balance.

About ten years ago, the first work was done with dihydrotachysterol or, as it is commercially known, hytakerol or A. T. 10. This substance is related chemically, a sort of cousin, one might say, to Vitamin D. The relationship stems from the fact that irradiation of ergosterol, which belongs to the same family as cholesterol, yields, in addition to compounds having antirachitic properties (vitamin D series), tachysterol. When this compound is reduced, dihydrotachysterol is obtained.

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*Read before the Fourteenth Annual Assembly of the Omaha Mid-West Clinical Society, October 28-November 1, 1946.

Pharmacologically, the action of this substance bears some resemblance to both parathormone and vitamin D, except in regard to absorption of calcium from the intestinal tract. The latter causes considerable increase in absorption, the parathormone not at all, and the hytakerol occupies an intermediate position in this respect. Vitamin D increases urinary excretion of phosphorus only slightly, while both parathormone and hytakerol increase it greatly, the latter to perhaps a slightly lesser extent. And it is this mechanism, which re-establishes a normal calcium-phosphate balance.

Although there is the similiarity in pharmacologic activity the use of hytakerol has certain advantages. First, parathyroid hormone is suitable only for parenteral use, being inactive when given orally, while hytakerol may be administered orally. Secondly, tolerance seems to be developed toward the parathyroid hormone so that ultimately it may fail to produce a response. It has also been mentioned that prolonged treatment may inhibit the activity of accessory parathyroid tissue. Thirdly, the parathyroid hormone causes a rapid rise in blood calcium which subsides in a day or two. Hytakerol does not seem to produce tolerance and the rise in blood calcium which it produces is slower but more lasting. Its ability to increase calcium absorption from the intestinal tract in addition to increasing urinary excretion of phosphorus represents a sort of double-barreled mechanism for re-establishment of the calcium-phosphate balance. The parathyroid hormone, on the other hand, affects directly only the urinary excretion of phosphate. It may be this difference which accounts for the difference in behavior. It has been suggested that hytakerol acts upon parathyroid tissue and causes stimulation at this level as an explanation of the mechanism of its activity.

Toxic effects may be obtained from overdosage with either the parathyroid hormone or hytakerol. The symptoms of these are languor, anorexia, nausea and vomiting, and, of course, hypercalcemia. If the hypercalcemia is very marked, there may be vertigo, tinnitus, headache, abdominal cramps, polyuria, ataxia, thirst, albuminuria, exanthemta, metastatic calcification. Rest, light diet, increased elimination are indicated if these are noted.

Proper use of hytakerol, obviously, therefore, requires periodic blood calcium determinations at the beginning of treatment until the required maintenance dose is established for the particular individual. The level should be kept at the lower border of normal. In the acute case parathormone may first be given, along with calcium parenterally, in order to bring the symptoms quickly under control. Following this, hytakerol administration is begun, in doses varying from 1 cc. to even as much as 10 cc., depending on the acuteness or chronicity of the case and upon the individual requirement. After the first three days, subsequent dosage as to both frequency and amount is determined by blood calcium values. Ultimate maintenance dose is determined in the same way. It is stated that dosage may have to be increased during menstruation and pregnancy and during periods of unusual activity. As an auxiliary measure, a low phosphorus diet supplemented by oral calcium intake is of value.

As a supplement to blood calcium determinations, use of the Sulkowitch test for calcium in the urine is definitely worth while. When the reagent (2.5 gm. oxalic acid plus 2.5 gm. ammonium oxalate plus 5 cc. glacial acetic acid diluted to 150 cc. with distilled water) is mixed with an equal volume of urine, absence of a precipitate means absence of calcium in the urine and a blood calcium value of between 5 and 7.5 mgm. per cent. If a light white cloud is formed, the urine contains a moderate amount of calcium and the blood calcium is probably within normal range. If, on the other hand, a milky precipitate forms, there is a large amount of calcium in the urine and there is danger of hypercalcemia. It should be borne in mind that this test does not completely eliminate the necessity of blood calcium determinations. It is merely supplementary.

How long treatment has to be maintained is dependent on the length of time required to restore normal blood calcium values.

BOOK REVIEW

PHARMACOPOEIA, U. S. of America, Mack Publishing Company, Easton, Pa., price $8.00.

This is the Thirteenth revision of the Pharmacopoeia, and contains 957 pages. Little can be added to what medical practitioners already know about a volume of this character. There have been many additions, including discussions on the newer drugs with comprehensive outlines on the chemotherapeutic and biotic agents. The type is unusually good, and easily read. We compliment the publishers on a huge task very well done.

Demerol As An Analgesic*

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Demerol is one of the newer synthetic analgesic drugs. In this country, it received nationwide publicity last summer when an article by Paul de Kruif, entitled "God's Own Medicine—1946" appeared in the Reader's Digest. Demerol was hailed as a miracle drug and was claimed to be as effective as morphine, but without danger of addiction. Recent editorials and correspondence to the Journal of the American Medical Association warn that cases of habituation and addiction to the drug have occurred(1, 2, 3).

Demerol was introduced in 1939 as a possible synthetic atropine derivative(4). Pharmacological studies soon indicated that, in addition to its atropine-like effect, Demerol possessed the ability to produce analgesia. Since then a considerable number of papers have appeared confirming its properties as an analgesic and spasmolytic agent. An impetus to these investigations was the search of a substitute for the impending shortage of morphine during the war. The drug has appeared on the European continent under the name of Dolantin and in England it was named Pethidin.

PHARMACOLOGY

Demerol is said to be closely allied to atropine. It has a more simple structural formula than morphine(5). Experiments indicate that Demerol has three distinct actions: (a) analgesic, (b) anti-spasmodic, (c) sedative.

In comparing the analgesic potency of Demerol to other drugs, it was found that the effect was twice as strong as codeine, but less potent than morphine(6). It has been estimated that 100 mg. of Demerol is equivalent to 10 mg. of morphine in its analgesic results. The duration of action of Demerol is shorter than that of morphine, the effect lasting one to several hours. Therapeutic doses of Demerol produce mild sedation. Toxic doses produce central stimulation. In the experimental animal, there may be excitement, ataxia, and convulsions.

Demerol is said to have distinct antispasmodic action on smooth muscle of the gastrointestinal tract, the bronchial tree, the urinary tract, and the uterus(7, 8). This action is partly due to depression of the parasympathetic endings, but primarily it is the result of direct depressant effect on smooth muscle similar to that of papaverine. The action is the reverse to the one noted with morphine. Some studies have indicated that relaxed smooth muscle may be frequently stimulated by Demerol, whereas spastic or activated visceral muscle was usually relaxed by the agent. The drug has very little effect on cough or diarrhea.

In human beings, Demerol in doses of 50 to 150 mg. at three or four hour intervals produces mild circulatory or respiratory effects rather infrequently. Toxic doses in the experimental animal have a pronounced effect on the heart, circulation, and respiration. Blood pressure falls from peripheral vasodilatation. The heart action is depressed by direct effect on the heart muscle and by the power of the drug to produce vagal depression. Respiration may be decreased in depth and frequency.

There is said to be no deleterious effects upon the hemopoietic system. Liver and kidney functions appear unaltered. Metabolic tests and electrocardiograms show normal response. The drug is rapidly absorbed by the oral or intramuscular route, the action occurring within fifteen to twenty minutes after administration. The agent is readily destroyed by the liver and perhaps other tissues.

SIDE REACTIONS

While Demerol appears to be a relatively safe drug and not toxic in therapeutic amounts, certain side effects should be watched for. Perhaps in 5% of cases, reactions may necessitate withdrawal of the drug. In one series, these reactions occurred in 37% of cases receiving the drug parenterally. The incidence increased to 68% for the ambulatory group upon oral administration.

The occurrence of these side effects is unpredictable as they may be present after the first dose or later. These side reactions are fairly well tolerated by the hospitalized patient. On the other hand, the ambulatory patient may present undesirable effects for several weeks to months. Dizziness is the most common side effect(5). It is usually mild and often described as a feeling of being drunk or lightheaded. Nausea and vomiting occur in a small number of the hospital patients, but in a higher percentage of the ambulatory group. Perspiration, dryness of the mouth, flushing of the face, euphoria, and weakness are other reactions less frequently encountered.

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*Read before the Omaha Mid-West Clinical Society, October, 1946.

Blood pressure and heart rate are usually not affected except in patients with syncope. Constipation is not produced. The size of the pupillary reflexes is unchanged. There is frequently a decrease or abolition of the corneal sensitivity. Drowsiness and sleep appear with larger doses. Severe reactions are said to occur rarely. These are characterized by extreme weakness and syncope accompanied by nausea, vomiting, dizziness, pallor, cold, clammy perspiration, fall in blood pressure, and slow ventricular rate. Severe reactions have been recorded only in the ambulant patient. The reaction may be aborted or diminished in intensity by assuming the recumbant position. It does not appear to occur in the bed-ridden patient.

CLINICAL USE

Clinically, the use of Demerol has been advocated for control of pain from any cause. It is said to be particularly effective for abolishing visceral pain, because of its antispasmodic as well as analgesic qualities. Biliary, gastrointestinal, or renal colic may be controlled in fifteen to twenty minutes by parenteral administration. The drug appears to be less effective in reducing pain of skeletal or neural origin. The average therapeutic dose varies from 50 to 150 mg.

Demerol has been found to be quite useful in pre-operative and post-operative care of patients. Respiratory difficulty and urinary retention are uncommon, nor does it cause constipation, which is commonly seen after opiate therapy. It has some sedative action, and may reduce restlessness and induce sleep when given intramuscularly.

Chronic nerve pain, such as neuritis, radiculitis, and intercostal neuralgia has been relieved with Demerol satisfactorily. In the treatment of arthritis, relief was obtained in 83% of cases(10). It was noted particularly that the relief of secondary muscle spasm and increased mobility of the joints followed prolonged administration of the drug.

Investigation of the effectiveness of Demerol in case of bronchial asthma has been made. Good results have been reported with small doses such as 25 to 35 mg. injected subcutaneously(11). The effectiveness of the drug is said to be due to its antispasmodic and sedative action causing no depression of respiration as might be expected from morphine. Caution should be used to prevent habituation from prolonged usage.

Demerol has been recommended as a preoperative analgesic(12). Its usefulness has been advocated because it does not interfere with the cough reflex or with pupillary changes. The dose usually given is 100 mg. It is often combined with scopolamine and is administered 45 to 90 minutes before operation. It compares favorably with morphine as a pre-anesthetic agent but produces fewer side effects such as nausea and excitation. Bronchial and salivary secretions are suppressed by Demerol in conjunction with ether anesthesia. Demerol has also been used with good results before minor surgical procedures such as dressings, small incisions and drainages, thoracentesis, etc.

Demerol has had its widest application in obstetrics for the control of labor pain(13, 14). In combination with scopolamine, it can produce satisfactory analgesia and amnesia. It has been reported that labor is shortened and that there is little adverse effect on the child. No increase in bleeding or atony of the uterus has been observed during the third stage of labor.

A study of one thousand cases at the Boston Lying-In Hospital revealed 70.5% satisfactory analgesia and amnesia; 16.9% had analgesia, but no amnesia, 12.6% had no amnesia(15). In a number of patients, failure was attributed to late administration of the drug. The Demerol-scopolamine combination seemed to reduce time of labor when compared with a series of 500 cases delivered under barbiturate analgesia. In view of the satisfactory amnesia, the absence of pulmonary complications and freedom from depressant effects upon the fetus, the Demerol-scopolamine analgesia was considered more satisfactory than other analgesics now in common use. The procedure outlined for the use of Demerol in obstetric analgesia is as follows:

(a) The initial medication—100 mg. of Demerol and 1/100 gr. of scopolamine intramuscularly followed by 1/150 gr. of scopolamine forty-five minutes later.

(b) After four hours another dose of 100 mg. of Demerol with 1/200 gr. of scopolamine.

(c) Thereafter when necessary 100 mg. of Demerol given every four hours and 1/200 gr. scopolamine every two hours.

(d) New admissions expected to deliver within two hours receive 100 mg. of Demerol and 1/100 gr. of scopolamine intravenously.

SUMMARY

Demerol is a satisfactory analgesia drug whose pain relieving action is relatively inferior to morphine. It appears to be an effective substitute in relieving pain of visceral origin, particularly of the gastro-intestinal, biliary, and urinary tracts. It is valuable in pre-operative and post-operative management of the surgical patient, because it does not depress respiration, cause retention of urine, or produce constipation. It is becoming more popular as an obstetrical analgesic in combination with scopolamine, because it appears to hasten labor, but does not cause respiratory depressions of the fetus.

Demerol has certain unpleasant side effects, particularly when given to the ambulant individual. While it appears to possess a lesser liability than morphine for the development of habituation, it must be administered with caution for prolonged use. It must be dispensed as any other opiate under the Narcotic Act.

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* * *

COAL-BURNING STEAM TRAINS MENACE TO HEALTH IN CITIES

"The coal-burning steam locomotive constitutes one of the most serious single health menaces in the urban air pollution picture," states The Journal of the American Medical Association in answer to a physician's query in the May 3 issue.

The Journal points out that "death rates from pneumonia, tuberculosis and respiratory tract cancer provide a clear index of the damage air pollution inflicts on a city's population. All three of these diseases show a much higher death and incidence rate in badly polluted areas."

The Journal suggests that "diesel engines provide the best answer to this phase of the problem, for with them the emission of water and solid particles is reduced to a minimum."

The health menace is particularly serious for heavily industrialized cities located in regions prone to natural large scale fogs or to night fogs from a hill and valley topography such as one sees at Cincinnati and Pittsburgh, according to the article. Coal-burning steam locomotives contribute (1) carbon particles, which would be harmless if pure but which have condensed on them varying loads of tars, some of which have been found definitely cancerigenic in animals; (2) fly-ash, which is probably more damaging than carbon soot to the human respiratory tract, especially in setting up chronic irritative states; (3) noxious gases, especially the oxides of sulfur, which form corrosive acids when dissolved in water, and (4) exhaust steam, which itself is not harmful but which is liberated into cold winter air in far greater amounts than the air can hold as invisible water vapor and hence must remain as a steam cloud.

"During stable winter weather phases of low air motion there is often formed a stratified ceiling 500 to 800 feet above the ground," states The Journal. "Into this pocketed air mass the locomotives exhaust their steam and polluting materials. Natural fog tendencies are thus greatly accentuated, and the suspension and rapid accumulation of all flue products in this surface fog mass lead quickly to 'smogs' and a dangerous atmosphere for the people to breathe. A recent U. S. Public Health Service survey indicated that about a fourth of the total pollution in the Chicago area is contributed by the coal-burning steam locomotives, but their output of exhaust steam to hold the polluting materials suspended easily gives them a first place as a public health menace."

The Laboratory Aspect of Brucellosis

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Three distinct types or species in the genus Brucella are capable of inciting disease in man. They are Brucella melitensis, Br. suis and Br. abortus. The normal host of each, in order, may be considered to be the goat or sheep, cattle and swine.

In addition to the above species, several sub-types have been described. The Danish porcine strain is an outstanding example and often para-strains are mentioned in the literature and may be referred to as para-melitensis, para-suis or para-abortus. Such strains usually do not conform to the type and are considered by many as "rough" variants of the parent type.

Classification within the genus is based on the ability of the particular organism to grow, or for growth to be inhibited, in the presence of certain concentrations of dyes, particularly basic fuchsin and thionin, the amount and production of hydrogen sulphide and the necessity of carbon dioxide for growth stimulation. Antigenic differences are important but are limited in application. Antigenic studies are useful in differentiating the extremes of type such as that existing between Br. melitensis on one hand and Br. abortus on the other. Br. suis cannot be differentiated from Br. abortus by this method.

The ability of the Brucella group to effect invasion is exceeded by few organisms, and in passing it is interesting to note that Pasteurella tularensis, considered by many to be more invasive than the Brucella, has been classified by some workers in the Brucella group.

As a result of the inherent infective nature of the Brucella, it might be expected that a wide range of animals are naturally infected and subsequently become reservoirs for the human infections. Among those known to be naturally infected are included the horse, dog, fowl, cat and rat. In addition to the normal host for each species, crossing of host and parasite occurs and as a result Br. melitensis may be found in cattle or Br. abortus in goats, or Br. suis might be isolated from either animal.

In a comparison of the virulent properties of one species with another, Br. melitensis and Br. suis have usually shown greater pathogenic powers toward man than Br. abortus. Pathogenicity, however, is relative, for it depends not only on the virulence of the invading organism but also upon the susceptibility of the host. For this reason, it is as possible for one individual to show as severe symptoms when infected with Br. abortus in one area as compared with another individual showing Br. melitensis or Br. suis infection in an endemic area. It is also true that a wide range of virulence exists within a species, and this makes possible the use of living vaccines in the immunization of cattle against contagious abortion. Lack of virulence may also partially explain the low incidence of disease in populations consuming raw milk from infected herds. Under such circumstances, it is apparent that the organism harbored by the herd must be of low virulence and only chance or individual susceptibility plays a part in the rare human case. Raw milk from such a herd can become highly infectious should a new virulent strain be introduced. This might occur by the purchase of additional animals, or the association of the herd with infected swine, goats or sheep. By these means, not only could a more virulent strain of Br. abortus be introduced to the herd but Br. melitensis, Br. suis or a combination of all three might be demonstrated.

Experience has shown the epidemiology of Brucellosis in Nebraska does not differ materially from that of Iowa. Hardy, et al, 1930 and Borts 1945, have shown the principal cause of human Brucellosis in Iowa to be Br. suis and of swine origin. Infection in most cases was associated with occupation and occurred most frequently in farmers and meat packing house workers.

The diagnosis of Brucellosis can be made with certainty only when the infecting organism is demonstrated and, of course, the same principle holds for many bacterial infections. If the infection is one of the septicemic type and an attempt is being made to recover the causative organism, it follows that the blood specimen should be taken under aseptic conditions and at a time when the organisms would most likely be found there.

This period in Brucellosis is early in the disease and usually is associated with splenomegaly. It also follows that one attempted blood culture is better than none and two attempts are better than one. In this connection it is noted that few blood cultures are submitted to the State Health Department laboratories in spite of their great usefulness in the diagnosis of Brucellosis, typhoid fever, paratyphoid fevers and streptococcal infections.

The test most frequently used, but rarely used to its best advantage is the agglutination reaction. The agglutination reaction finds its greatest usefulness when several specimens are taken, at regular intervals, and submitted to the same laboratory with a view of ascertaining a rise or fall in blood titre. A steady rise in titre has considerable diagnostic value. An acute case may show an initial negative reaction or a low titre of 1/50 or 1/100 and rise in a matter of two or three weeks to a titre of 1/1,280 or 1/2,560 or in rare cases elevate to a high of 1/200,000. A low titre blood, 1/80 or 1/160, if taken during a febrile period and if wholly unrelated to Brucellosis will usually subside after the fever and will not confuse the diagnosis if a second blood is taken. Such reactions are called anamnestic and, in addition to Brucella, other antigens may be affected as well. Thus, a temporary rise in typhoid and paratyphoid titres might be found in similar situations. In this connection it should be noted that the use of Brucellergin or Brucella vaccine for skin testing should be avoided during the period of titre determination as these antigens may stimulate an increase in agglutination titre and lead to confusion in diagnosis. The skin test is not a laboratory procedure and will not be discussed here. It is pointed out, however, that the test depends on an allergic response and may occur in many individuals showing no evidence of infection, either past or present.

The so-called Opsono-cytophagic index test as a laboratory procedure is of questionable value. It is based on the phagocytic activity of the patient's leucocytes on a strain of Brucella under standard conditions. Phagocytic activity is determined by several factors and each must be carefully controlled if the determination is to have validity. Since control of these factors in other than ideal conditions is practically impossible, most laboratories do not recommend the use of the opsono-cytophagic as a diagnostic procedure.

SUMMARY

1. The epidemiology of Brucellosis in the Iowa-Nebraska area shows farmers and packing house workers most frequently infected. Infection follows contact with swine.

2. Blood cultures should be taken early in the disease and at frequent intervals.

3. The Agglutination reaction is of particular value, especially if an attempt is made to ascertain a rise in titre.

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JOURNAL UPHOLDS BILL TO RAISE ARMY PHYSICIANS' PAY

Commenting on the bills introduced simultaneously in the House and Senate to raise army physicians' pay, the May 3 issue of The Journal of the American Medical Association states that "it is obviously proper that men who have given special attention and time to prepare themselves for advanced work in the medical specialties should have the increased recognition represented by an increased emolument for their work."

The bills were introduced on April 18. The Journal editorial further points out that "the differential between the income of civilian doctors and that of medical officers in the service probably has much to do with the fact that fewer medical officers are in the regular Army today than before the recent war began. The Army is having difficulty in attracting sufficient medical officers to fill even the present quota allowed by Congress. Should Congress provide increased pay for medical officers and should plans of the War Department go through to allow medical officers to spend more of their time in professional work the military service would become more attractive to well qualified young doctors.'"

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

COMMUNICATIONS

R. B. Adams, M.D., Secretary,
Nebraska State Medical Assn.

Dear Sir:

Indiana has recently passed a law requiring annual registration of physicians, which will become effective July 1st.

As we have Indiana licensees scattered over most of the States and since we do not have mailing addresses, we are making every effort to get the information to all licensees, so they will not be revoked.

Your cooperation will be greatly appreciated by our Board, and I am sure would be by any Indiana licensee who may be residing in your State.

Yours very truly,

Board of Medical Registration and Examination of Indiana.
R. V. KIRK,
Executive Secretary.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-fifth annual scientific and clinical session Sept. 2, 3, 4, 5 and 6 inclusive, at the Hotel Radisson, Minneapolis. Scientific and clinical sessions will be given the days of Sept. 3, 4, 5 and 6. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 2, 3, 4 and 5. These courses will be open to physicians and the therapists registered with the American Registry of Physical Therapy Technicians. For information concerning the convention and the instruction course, address the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

INSTALLATION OF PRESIDENT

Tuesday, April 29, 1947

Frank D. Ryder, M.D., of Grand Island, Presiding

CHAIRMAN RYDER: It gives me great pleasure to call to the platform your next speaker. I have been associated with him for twenty-seven years, but I have never known him to work harder than he has worked in the past year.

We will listen to Dr. Earle G. Johnson of Grand Island, in his Presidential Address.

(Dr. Johnson read his paper*, and at the conclusion of the address, Dr. Charlton was called upon the stage).

DR. JOHNSON: By the act of the House of Delegates and your Nominating Committee last year, you chose Dr. George Charlton, Superintendent of the Norfolk State Hospital at Norfolk, as your President to succeed me. According to custom, it is now my privilege and honor to install my successor and wish him the continued support that you have so generously given me.

As a symbol of this office, Dr. Charlton, it is my privilege to present to you this gavel. This gavel is of wood from a tree which was planted in 1852 in Hall County in what is known as the Staley Park Grove by an immigrant of the old Schleswig-Holstein German group. Therefore, the wood is today ninety years old.

The head is black walnut. The handle is an old billiard cue from the old Liederkranz Society of Grand Island. The workmanship is that of my good friend, Fred Clark, a cabinet-maker of no mean ability.

It is now my privilege to take that badge away from you and present to you, on behalf of your colleagues of the Nebraska State Medical Association, this badge of honor.

(Applause).

DR. CHARLTON: Dr. Johnson, I wish to thank you. I think we all recognize the tremendous amount of time and the effort that you have given this organization during your presidency. In behalf of the Nebraska State Medical Association I wish to publicly express our gratitude for the wonderful President that you have been and at this time I wish to present to you the Certificate of Distinguished Honor for the service and effort you have given. I am sure that we are a much better and a stronger organization, for these efforts that you have made in our behalf.

Thank you for all the things you have done. And I wish to present to you this badge, indicative of the service that you have rendered.

(Presents past president's badge).

DR. JOHNSON: Thank you, Dr. Charlton.

DR. CHARLTON: Members of the Nebraska Medical Association, Ladies and Gentlemen: As your President, I would be remiss in common courtesy if I did not again thank you, and express to you my gratitude and appreciation of this honor—an honor of which any man may be proud.

I am not unaware of the responsibilities entailed and the effort it will take if this Association continues to function in the wonderful manner it has done heretofore.

During the past year, as your President-Elect, I have attended many meetings acquainting myself with the activities, the problems of this organization, and I am thoroughly impressed with the wisdom of those who prescribed a one year's service for the President-Elect before he became President. The knowledge gained of Association affairs through attending these meetings of the Board of Trustees, the Planning Board, the Councilors' meetings, Medical Service and Scientific Assembly and other committees, is essential if the new President is to be at all helpful to the organization.

I am sure that those not familiar with the detailed workings of committees could hardly realize the tremendous effort and time spent by the doctors as members of these different committees. I commend to you most heartily these doctors who have done such fine committee work and assure them of our appreciation.

At this time I wish to thank all those who have been so kind and helpful to me during the preparatory year; especially do I wish to thank our Secretary, Dr. Adams. I am sorry the doctor can't be here because of illness. And I wish to thank our Executive Secretary, Mr. Smith, for his many kindnesses and courtesies.

Our organization is not and cannot be a perfect one. We are constantly faced with problems, old and new, that demand careful study and unselfish effort. I am sure, however, that the continued loyal support and cooperation of our membership, our committees, and our officers, will assure us that the Nebraska State Medical Association will continue to go forward, and to this end I pledge you my utmost support.

☆ ☆ ☆ BUY ☆ ☆ ☆
U. S. Saving Bonds

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* See June issue this Journal.

IN MEMORIAM

Name	Address	Date
ABBY, VIRGINIA HOLMES	Omaha	March 6, 1947
ANDRUS, FREDERICK MOORE	Lincoln	June 14, 1946
BENTON, JOSEPH EUGENE	Central City	April 22, 1947
BOETEL, GEO. HANS	Omaha	May 14, 1946
BREUER, CHARLES H.	San Jose, Calif. (Lincoln)	December 18, 1946
BRIGGS, W. H.	Ewing	July 10, 1946
BURNHAM, F. A.	Arnold	April 16, 1947
BYERS, GEO. ALLAN	North Bend	January 19, 1947
CHAPMAN, ALMA J.	York	September 7, 1946
CONLEE, CHARLES C.	Cook	December 27, 1946
CRUDUP, C. P.	North Carolina (Nebraska City)	
CUMMINS, EDGAR D.	Lincoln	February 3, 1947
DEARDORF, BENJAMIN MILES	Clatonia	January 13, 1947
DERMODY, LEO A.	Omaha	April 5, 1947
DUNHAM, L. H.	Scottsbluff	March 15, 1947
EDWARDS, LEE W.	Omaha	January 17, 1947
ELLIS, PAUL H.	Omaha	March 12, 1947
ENGLAND, JOHN D.	Axtell	April 1, 1946
ERMAN, JACOB MARTIN	Omaha	June 4, 1946
EVERETT, M. H.	Lincoln	April 4, 1946
HAUSLEIN, CHARLES MICHAEL	Omaha	September 8, 1946
HENDERSON, ROBERT G.	Falls City	September 25, 1946
HEWITT, HAMILTON WILLIAM	Lincoln	February 18, 1947
KILIAN, LEO JULIUS	Wayne	April 27, 1946
LANDIS, HENRY BRUCE	Broken Bow	February 3, 1947
LE MAR, FRED ALLARD	Columbus	January 2, 1947
MEDLAR, CLYDE A.	Verdon	April 3, 1947
MORRIS, DON F.	Lewellen	January 21, 1947
MOYER, TORRANCE CALVIN	Lincoln	September 8, 1946
OLSSON, JUSTUS EDGAR	Lexington	March 22, 1947
PENNER, L. E.	Beatrice	March 25, 1947
PUGSLEY, GEO. W.	Bayard	March 23, 1947
ROSENBERG, FRANK J.	Lexington	May 30, 1946
SMITH, DAVID JACKSON	Osceola	May 23, 1946
SNOWDEN, CHARLES C.	Davenport	November 1, 1946
TEMPLE, CLAUDE H.	Memphis, Tenn (Lincoln)	April 16, 1946
THOMSEN, JOHN HENRY	Omaha	January 21, 1947
WEIRICK, GEO. ALBERT	Elgin, Ill. (Hastings)	October 2, 1946
WEGMAN, SARAH JANE	Hastings	December 29, 1946
WHALEY-DORFLER, ADDA	Omaha	
WILLIAMS, WM.	Bayard	March 20, 1947

NEWS and VIEWS

President-Elect James E. M. Thompson of Lincoln, president of the American Academy of Orthopedic Surgeons, received Czechoslovakia's highest honor, the Order of the White Lion, June 4.

Dr. Eben J. Carey, Dean of Marquette University School of Medicine and graduate of Creighton University, died Thursday, June 5, at Milwaukee.

He received his Bachelor of Science Degree at Creighton in 1916, and was instructor of anatomy at the University School of Medicine from 1914 to 1920. He was made Dean at Marquette in 1933. He was the commencement speaker at Creighton in 1945, at which time he was presented with an honary degree of Doctor of Law.

Appointment of Dr. Franklin L. Spradling to replace Dr. A. H. Fechner, who is resigning as superintendent of the Lincoln State Hospital, was announced by the Board of Control Friday.

Dr. Spradling has been a member of the State Hospital staff 16 years. He was acting director four years during the war and assistant superintendent four years preceding the war.

Dr. Fechner was at the Hastings State Hospital from 1934 to 1938. He headed the Lincoln State Hospital since 1938.

He resigned to become chief of the division of neuropsychiatry in the Branch 13 area of the Veterans Administration. He will have headquarters at Denver.

Dr. Spradling was born in Lexington in 1889, graduated from Cotner Medical College in 1912, and did post graduate work at Columbia University.

He is a member of the American Psychiatric Association, the American, and Nebraska State Medical Associations.

Dr. Aileen E. Mathiasen has been elected president of Nebraska Branch of American Medical Women. Dr. Nancy Catania is vice president, and Dr. Elinor Marsh, secretary-treasurer. Dr. Esther McEachen was chosen delegate to the national meeting in Atlantic City, June 7.

Dr. Roy W. Fouts of Omaha, a past president of the Nebraska State Medical Association, was re-elected Speaker of the House of Delegates of the American Medical Association at its Centennial Convention in Atlantic City, in June.

CASH SICKNESS BENEFITS FOR RAILROAD WORKERS*

A cash sickness benefit system for railroad workers will begin operating throughout the nation on July 1. These benefits were added under the 1946 amendments to the Railroad Unemployment Insurance Act and provide partial compensation for wage loss due to disability on the same basis as that due to unemployment. The system will be administered by the Railroad Retirement Board, which administers the Railroad Unemployment Insurance Act.

All disabilities which prevent railroad employees from working, regardless of how or where they occur, are covered under the programs. In the first year of operations, about 300,000 of the 2,075,000 railroad workers qualified are expected to receive benefits, and the total amount of benefits is expected to reach $36,000,000.

A physician's statement of sickness will be required before claims can be paid. It is believed that the program will require about 650,000 medical examinations a year. Employees are free to choose their own doctors, and any physician to whom an employee goes for examination or treatment may supply the information required as initial proof of an employee's claim.

The forms on which medical information will be requested from a physician are the "Statement of Sickness" and the "Supplemental Doctor's Statement." The first mentioned form is intended primarily to obtain information at the beginning of each illness, and the second is intended to obtain additional information only when such information is needed later on in the same illness. The statements are designed to furnish, as simply and as conveniently as possible for the physician, the minimum information required for Board purposes.

The "Statement of Sickness" on which the medical evidence is to be furnished must be mailed to the appropriate office of the Railroad Retirement Board within seven days after the first day claimed as a day of sickness, or the employee may lose part of his benefits. Claims for succeeding fourteen day periods may be allowed for a predetermined period as indicated by the medical evidence on the doctor's initial statement, but in continuing illnesses supplemental information about the patient's illness may also be requested from a physician.

Claims will be filed and adjudicated in the regional offices of the Railroad Retirement Board. These offices are located in Atlanta, New York, Cleveland, Chicago, Dallas, Kansas City, Minneapolis, Denver, and San Francisco and serve the adjoining territories. Each will have a physician who will act as a medical consultant. Additional information about the program may be obtained from any of the aforementioned offices.

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* Excerpt from Organization Section, Page 295, Journal of American Medical Association, May 17, 1947.

DOCTORS IN SERVICE HAD TIME ON THEIR HANDS, SURVEY SHOWS

Army and navy physicians who served in World War II had time on their hands while doctors who remained at home during the war years were overworked, according to an analysis of questionnaires returned by former military medical officers contained in a report to the Committee on National Emergency Medical Service of the American Medical Association.

"Navy doctors were more idle than army doctors only because they had fewer nonprofessional duties," the report shows. "During combat service they were busy only 71 per cent of their time, gaged by civilian standards, of which 51 per cent was in the performance of professional duties and 20 per cent in the performance of non-professional duties."

Army medical officers estimated that under the same conditions they were occupid with professional duties 50 per cent of the time, and 30 per cent with non-professional duties. During noncombat periods, navy doctors were busy with professional duties 40 per cent of the time and with nonprofessional duties, 16 per cent; army doctors reported 39 per cent of their noncombat time was occupied with professional duties, 23 per cent nonprofessional.

In contrast to this report, the analysis of 2,322 replies to a questionnaire sent to a random selection of physicians who remained in civilian practice during the war years showed that they had treated 76 per cent more patients in 1944 than in 1941. Results of the civilian physician questionnaire were announced two weeks ago.

The study of the war-time experience and opinions of military and civilian physicians has been conducted by the Committee on National Emergency Medical Service of the American Medical Association which will make its report to the House of Delegates of the Association next week in Atlantic City. The report will include recommendations for meeting civilian and military needs for medical care in the event of another national emergency.

Members of the committee include: Edward L. Bortz, M.D., chairman, of Philadelphia, who will be inaugurated as president of the association at the Atlantic City session, and Harold S. Diehl, M.D., Minneapolis; Perrin H. Long, M.D., Baltimore; Harold C. Lueth, M.D., Omaha; O. O. Miller, M.D., Louisville; James C. Sargent, M.D., Milwaukee, and V. C. Tisdal, M.D., Elk City, Okla.

The report stated that the replies came from 20,001 army doctors; 5,727 former navy doctors and 290 replies from the U. S. Public Health Service or Veterans Administration doctors or from combinations of the four during World War II. These 290 replies will be analyzed later.

Comparisons between army and navy doctors revealed that the average army doctor served 42 months as against 36 months for the average navy doctor.

The report said in part: "A smaller percentage of navy doctors, 11, were general practitioners before entering military service than army doctors, 17; likewise fewer navy doctors were part time (18 per cent) and more (33 per cent) were full time specialists; also more (20.3 per cent) were members of American boards. The replying navy doctors slightly outranked the replying army doctors, and slightly more of them spent their entire or longest period of service in North America. A larger percentage (60) Army than Navy spent more time in hospitals than in dispensaries and other types of service.

"Doctors were asked to estimate the number of physicians actually needed in their units; Army replies averaged 72 per cent and Navy replies 70 per cent, reflecting consideration of 'peak load' requirements. The general conclusion of the survey is that considerably more doctors were inducted into the armed services than were needed in the opinion of the doctors themselves, although some question may be raised concerning the competence of humble doctors in the ranks to measure military necessity as to both time and non-professional duties. Replies from so many doctors give weight to these criticisms—the wastage of medical skills.

"Both army and navy doctors agreed that 'professional on-the-job' training was the most useful feature of their training, and that an ideal training program should stress more medical training, both general and in the specialized fields of military medicine. Neither army nor navy doctors were enthusiastic about their assignments, although navy doctors were slightly better satisfied. Forty-eight per cent of the navy doctors reported that they were rotated in assignment, and only 22 per cent army doctors. Apparently this difference is not due entirely to the inherent differences between the two branches of the service. A question relating to how medical personnel could have been used more effectively if it was wasted in his unit brought replies which stressed better assignments, reduction in the number of doctors and fewer nonmedical duties, the latter being stressed more by army than by navy doctors. Suggestions regarding assignment of medical officers in the event of another national emergency revealed that more consideration of age and qualifications, assignment according to actual need, rotation of duties, and rank and promotion according to professional ability were the most popular remedies. In rating efforts to utilize their professional skills, the replies indicate that the doctors thought these efforts only moderately successful, even less for Army than for Navy. The replies indicated reasonable success in getting medical publications to the doctors, although, of course, navy doctors had less trouble with transportation and received the journals more regularly. Army doctors reported more teaching clinics and more medical meetings in their theaters than navy doctors.

In conclusion the report analyzed what the doctors wanted in case of another national emergency.

"What they want must surely be a bold, courageous, forward-looking program and not one which looks backward toward the last war," the report said, adding: "They want a public-spirited organization, representing the profession, established and implemented in the hope that it can help to prevent the mistakes of World War II. They want the limited supply of medical skills carefully and wisely distributed so as to attain the highest standards of medical care for civilians and military personnel in the event of another national emergency. They doubt that 60 per cent of the nation's physicians could provide effective medical care for the civilian population in the event of an atomic war."

"In the second place," the report continued, "the former medical officer wants the highest officials in Washington to ask the Secretary of War and Secretary of Navy to review their organizational tables and procedures in order to prevent a recurrence of (1) the medical overstaffing of units, (2) wasting of the time of doctors of medicine in the performance of nonprofessional duties which could have been performed effectively by nonmedical personnel, (3) removal of a needlessly excessive number of doctors of medicine from civilian hospitals and practices, (4) the rather widespread failure to make assignment and provide for rotation of doctors of medicine on the basis of their professional skills and qualifications, experience and age, (5) a military hospital construction policy which will give close attention to possible civilian wartime requirements."

DOCTORS WOULD FAVOR NATIONAL SERVICE BILL IN EVENT OF WAR

A national service bill that would require all doctors to serve the government in some capacity in the armed forces or in civilian communities in the event of another national emergency has been proposed by physicians who recently were surveyed as to their opinions by the American Medical Association.

Approximately 5,000 questionnaires were sent to physicians, selected at random, who were in civilian practice during the war, by the Committee on National Emergency Service of the A.M.A., of which Dr. Edward L. Bortz, Philadelphia, president-elect of the association, is chairman. The questionnaire provided an opportunity for those who were responsible for civilian care in those years to indicate what changes should be made in the mobilization of medical service in future emergencies.

Frank G. Dickinson, Ph.D., Director of the Bureau of Medical Economic Research of the A.M.A., presents an analysis of 2,322 answering questionnaires in the May 24 issue of The Journal.

More than three fourths of the physicians indicated that in the event of another national emergency, a board representing the medical profession should be empowered to set the policy for the utilization of all physicians. The overwhelming majority of those favoring this policy said that this board should set the policy for the utilization of both military and civilian physicians.

Approximately 60 per cent of the doctors also voted their agreement to a national service bill that would require all physicians to serve the government in some capacity in the armed forces or in civilian communities.

Other results of the survey indicated that:

> 68.3 per cent of the doctors believe that all qualified civilian physicians should be required to serve in rotation on Selective Service Boards in their communities in the event of another national emergency.
>
> 65.6 per cent of the physicians feel that if more doctors had been released from their communities for military service it would have endangered the welfare of the civilian population.
>
> 55.8 per cent of the doctors believe that the community could not have been served in a reasonably adequate manner if there had been a large scale epidemic; 44.8 gave as one reason the insufficient number of physicians; 46.9 per cent gave an insufficient number of nurses as the reason; 7.9 gave inadequate supply of commonly used drugs and equipment and 6.8 per cent gave insufficient hospital facilities as the reason.
>
> 53.3 per cent think that civilian nursing and technical personnel was unduly and dangerously reduced by induction into the armed forces.

This cross section of physicians also indicated that they treated 76 per cent more patients in 1944 than in 1941 and were called on during this period to see approximately three-fourths more patients.

Dr. Dickinson feels that it is significant that 80.8 per cent of the physicians favor the formation of mobile civilian medical teams to supply areas stricken by epidemics and atomic or bacteriologic warfare. "It seems clear," states the author, "that if 81 per cent of the doctors are willing to support the formation of mobile civilian medical teams they are certainly aware that in the next war the task of taking care of civilians 'after the storm' may be a greater medical problem than the medical care of military personnel. The vote on this question clearly indicates that the civilian doctors of America are aware of the serious implication of possible atomic and bacteriologic warfare."

A series of questions asking the physician to state his opinion as to which of the listed civilian services were unnecessarily depleted in his community were checked as follows: 46.1 per cent checked hospital facilities as being unnecessarily depleted, 34.4 per cent checked private practice, 12.4 per cent checked medical education, 6.5 per cent checked public health, 2.7 per cent checked industrial medicine and one per cent wrote "Nursing" in the blank for Other.

MINUTES OF BOARD OF COUNCILORS

April 29, 1947

The first meeting of the Board of Councilors was called to order by Dr. Chas. Way, Secretary, acting in the absence of the President, Dr. Clayton Andrews, at 5:30 p.m. in Parlor G, Hotel Paxton, Omaha, Nebraska. The following members were present: Drs. H. S. Andrews, W. R. Neumarker, M. O. Arnold, Chas. Way, W. E. Shook, J. B. Redfield, G. E. Peters. Dr. Clayton Andrews was seated after the meeting had been called to order and later took the chair as President.

Also present were Drs. G. E. Charlton, H. M. Jahr, D. B. Steenburg, Rudolph F. Decker, and Mr. M. C. Smith.

The minutes of the last meeting were adopted as published.

Dr. Charlton made the appointment of Dr. R. R. Brady as Acting Councilor in the place of Dr. O. W. French who had presented his resignation as Councilor of the 8th District; also the appointment of Dr. Ted Riddell as Acting Councilor of the 12th District to replace the late Dr. G. W. Pugsley.

Dr. D. B. Steenburg read a communication from Dr. Geo. W. Covey, Chairman of the Board of Trustees. General discussion followed.

Dr. Andrews asked permission of the Council to interrupt the discussion and present Drs. Brady and Riddell to the Council as new members of this body.

A motion was made by Dr. J. B. Redfield that the Council recommend to the House of Delegates that the dues be raised to $30.00 per year in keeping with the recommendation submitted to the Council by the Board of Trustees under the date of April 28, 1947, and signed by Dr. Geo. W. Covey, Chairman of the Board of Trustees. The motion was seconded by Dr. W. E. Shook and unanimously carried.

The Council adjourned to meet again tomorrow morning immediately following the meeting of the House of Delegates.

April 30, 1947

The Board of Councilors held their second session in Parlor G, Paxton Hotel, Omaha, Nebraska, immediately upon adjournment of the House of Delegates.

The following members were present: Drs. W. E. Shook, H. S. Andrews, J. B. Redfield, M. O. Arnold, R. R. Brady, W. R. Neumarker, Clayton Andrews, Chas. Way, G. E. Peters, Ted Riddell, and A. A. Ashby.

Also present were Drs. H. M. Jahr, Homer Davis, R. F. Decker, and Mr. M. C. Smith.

The minutes of the first meeting were read by Dr. Chas. Way, Secretary of the Council.

A motion was made that the minutes be approved as read. The motion was seconded and carried.

Dr. Clayton Andrews submitted the names of Dr. F. W. Plehn, Scottsbluff, Scotts Bluff County; Dr. F. P. Dorsey, Sr., Hartington and Dr. C. T. Ingham, Alhambra, California, Five County; and Drs. C. L. Fahnestock and R. A. Lyman, Lincoln, Lancaster County, for Honorary Memberships in the state association.

A motion was made by Dr. H. S. Andrews that Drs. F. W. Plehn, F. P. Dorsey, Sr., C. T. Ingham, C. L. Fahnestock and R. A. Lyman, be recommended to the House of Delegates for Honorary Memberships. The motion was seconded and carried.

Nominations for a member of the committee on Medical-Legal Advise was called for by the President.

A motion was made that Dr. R. B. Adams be elected to succeed himself on the committee on Medical-Legal Advise. The motion was seconded and carried.

Nominations for a member of the Board of Trustees was called for and a motion was made that Dr. D. B. Steenburg be elected to succeed himself as a member of the Board of Trustees. The motion was seconded and carried.

Discussion relative to constitutional terms of different officers ensued.

A motion was made that the Council recommend to the House of Delegates and the Committee on the Revision of the Constitution that the Board of Trustees office should be limited to two terms of four years each. The motion was seconded and carried.

General discussion relative to county society censors, councilor district societies and their functions, and the transfer of members from one county, or state, to another society followed.

As an expression of memorial recognition to a former member of the Council and member of the Nebraska State Medical Association, Dr. Geo. W. Pugsley, Bayard, Nebraska, the Council was asked to stand for a few minutes.

A motion was made by Dr. W. E. Shook that the Council send a suitable memorial resolution in memory of Dr. Pugsley to Mrs. Pugsley at Bayard. The motion was seconded and carried.

Dr. G. E. Peters asked that his vote on the motion to raise the dues be changed and that the records show him not in favor of the raise.

The Council stood adjourned, to meet again tomorrow immediately after the House of Delegates.

May 1, 1947

The third and final session of the Board of Councilors was called to order at 10 a.m., by Dr. Clayton Andrews, President of the Council, in Parlor G, Hotel Paxton, Omaha, Nebraska. The following members were present: Drs. G. E. Peters, J. B. Redfield, H. S. Andrews, A. A. Ashby, Ted Riddell, R. R. Brady, M. O. Arnold, Clayton Andrews, W. E. Shook and Chas. Way. Dr. G. E. Charlton, President, was also present.

The minutes of the second session were approved as read before the House of Delegates.

A motion was made by Dr. G. E. Peters that a message be sent to Dr. R. B. Adams expressing regret at his forced absence from the meeting. The motion was seconded and carried.

There being no further business, the Council adjourned.

ROLL CALL—HOUSE OF DELEGATES, 1947

	Session		
	1st	2nd	3rd
ADAMS—			
Geo. Pinney, Hastings (D)			P
R. H. Schaefers, Hastings (A)	P		
BOONE—			
G. W. Sullivan, St. Edward (D)	P	P	
J. E. Davis, Albion (A)			
BOX BUTTE—			
John S. Broz, Alliance (D)	P	P	P
F. P. Sucgang, Alliance (A)			
BUFFALO—			
Wm. Nutzman, Kearney (D)			
R. S. Johnston, Kearney (A)			
BURT—			
L. E. Sauer, Tekamah (D)	P	P	
J. G. Allen, Craig (A)			
BUTLER—			
D. E. Burdick, David City (D)			
O. E. Longacre, Rising City (A)			
CASS—			
CHEYENNE, KIMBALL, DEUEL—			
CLAY—			
COLFAX—			
S. B. Koory, Schuyler (D)			
H. Dey Myers, Schuyler (A)			
CUSTER—			
R. D. Bryson, Callaway (D)	P	P	P
DAWSON—			
C. H. Sheets, Cozad (D)	P	P	P
H. M. Harvey, Gothenburg (A)			
DODGE—			
R. T. Van Metre, Fremont (D)	P		
A. O. Fasser, Fremont (A)			
FILLMORE—			
J. Bixby, Geneva (D)	P	P	P
FIVE COUNTY—			
Walter Benthack, Wayne (D)	P	P	P
L. J. Kilian, Wayne (A)			
J. C. Kildabeck, Emerson (D)			
R. E. Bray, Ponca (A)			
F. P. Dorsey, Jr., Hartington (D)			P
F. G. Dewey, Coleridge (A)			
FRANKLIN—			
Hal C. Smith, Franklin (D)			
L. S. McNeil, Campbell (A)			
FOUR COUNTY—			
E. J. Smith, Burwell (D)			
C. J. Miller, Ord (A)			
GAGE—			
R. W. Taylor, Beatrice (D)			
H. D. Runty, DeWitt (A)			

	Session		
	1st	2nd	3rd
GARDEN, KEITH, PERKINS—			
E. A. Harvey, Ogallala (D)			
F. M. Bell, Grant (A)			
HALL—			
W. J. Arrasmith, Grand Island (D)	P	P	P
E. E. Farnsworth, Grand Island (A)			
HAMILTON—			
J. M. Woodard, Aurora (D)	P	P	
D. B. Steenburg, Aurora (A)			P
HARLAN—			
K. C. McGrew, Orleans (D)			
R. H. Kerr, Alma (A)			
HOLT and NORTHWEST—			
Harold J. Panzer, Bassett (D)	P		P
Robert Reeder, Valentine (A)			
HOWARD—			
JEFFERSON—			
JOHNSON—			
Eugene VanAckeran, Tecumseh (D)	P		
J. A. Lanspa, Tecumseh (A)			
LANCASTER—			
E. W. Hancock, Lincoln (D)	P	P	P
E. E. Angle, Lincoln (A)			
W. C. Becker, Lincoln (D)	P	P	P
S. O. Reese, Lincoln (A)			
E. S. Wegner, Lincoln (D)			
Fritz Teal, Lincoln (A)	P	P	P
H. S. Morgan, Lincoln (D)	P	P	P
W. W. Carveth, Lincoln (A)			
LINCOLN—			
C. F. Heider, North Platte (D)		P	P
G. F. Waltemath, North Platte (A)			
MADISON SIX—			
W. I. Devers, Pierce (D)			
John H. Calvert, Pierce (A)			
F. X. Rudloff, Battle Creek (D)	P	P	
A. C. Barry, Norfolk (A)			
H. W. Tennant, Stanton (D)			
S. G. Allen, Stanton (A)			
E. E. Curtis, Neligh (D)			P
W. W. Graham, Elgin (A)			
E. E. Wright, Creighton (D)	P	P	P
R. E. Johnson, Wausa (A)			
A. W. Anderson, West Point (D)	P		
Warren D. Hansen, Wisner (A)			
MERRICK—			
NANCE—			
Homer Davis, Genoa (D)		P	P
Edward R. Slovik, Fullerton (A)			
NEMAHA—			
I. W. Irvin, Auburn (D)			
Edgar Cline, Auburn (A)			
NORTHWEST NEBRASKA—			
S. A. Swenson, Hay Springs (D)	P		P
R. L. Hook, Rushville (A)			
NUCKOLLS—			
A. I. Webman, Superior (D)	P	P	P
J. E. Ingram, Nelson (A)			
OMAHA-DOUGLAS—			
O. J. Cameron, Omaha (D)	P		P
Jos. A. Pleiss, Omaha (A)		P	
H. H. Davis, Omaha (D)	P	P	P
E. L. MacQuiddy, Omaha (A)			
E. M. Walsh, Omaha (D)			
Chas. F. Moon, Omaha (A)	P	P	P
Lowell F. Dunn, Omaha (D)	P		P
L. O. Hoffman, Omaha (A)			
W. J. McMartin, Omaha (D)	P		
E. J. Kirk, Omaha (A)			
A. J. Offerman, Omaha (D)	P	P	P
J. E. Courtney, Omaha (D)			
David Findley, Omaha (D)	P		
W. E. Kroupa, Omaha (A)			
OTOE—			
R. C. McIllece, Nebraska City (D)			
R. P. Carey, Talmage (A)			
PAWNEE—			
A. B. Anderson, Pawnee City (D)	P	P	
H. C. Stewart, Pawnee City (A)			
PHELPS—			
H. A. McConahay, Holdrege (D)	P	P	P
Robert Best, Holdrege (A)			
PLATTE—			
E. E. Koebbe, Columbus (D)	P	P	P
C. H. Campbell, Columbus (A)			
POLK—			
H. S. Eklund, Osceola (D)		P	
W. N. Blome, Stromsburg (A)			
RICHARDSON—			
H. R. Miner, Falls City (D)	P		
Wm. Shepherd, Falls City (A)			
SALINE—			
Victor Simecek, Crete (D)	P	P	
R. K. Johnson, Friend (A)			
SAUNDERS—			
W. W. Noyes, Ceresco (D)		P	
W. Ray Hill, Wahoo (A)			
SCOTTS BLUFF—			
W. Max Gentry, Gering (D)	P	P	P
W. C. Harvey, Gering (A)			
SEWARD—			
J. T. Stanard Seward (D)		P	P
C. F. Hille, Beaver Crossing (A)			
SOUTHWESTERN NEBRASKA—			
E. F. Leininger, McCook (D)	P	P	P
D. H. Morgan, McCook (A)			
Kenneth Brown, Stratton (D)			
L. B. Brown, Stratton (A)			
J. F. Premer, Benkelman (D)			
G. Morehouse, Benkelman (A)			
Van Magill, Curtis (D)			
B. I. Mills, Maywood (A)			
C. E. Minnich, Cambridge (D)		P	P
H. I. Stearns, Cambridge (A)			
A. B. Fellers, Palisade (D)			
J. E. Prest, Trenton (A)			
THAYER—			
F. A. Mountford, Davenport (D)	P	P	P
V. D. Douglas, Carleton (A)			
Morris Nielsen, Blair (D)	P	P	P
W. E. Goehring, Blair (A)			
WEBSTER—			
YORK—			
H. O. Bell, York (D)		P	P
R. E. Harry, York (A)			
TOTAL	38	35	34

MINUTES OF HOUSE OF DELEGATES

April 29, 1947

The first meeting of the House of Delegates was held in Parlor B, Paxton Hotel, Omaha, Nebraska. Thirty-eight members were present.

The meeting was called to order by Dr. Rudolph F. Decker, Speaker of the House of Delegates at 12:30 p.m.

In the absence of the chairman of the Credentials Committee the following report was read by Dr. Decker, Speaker:

"The Credentials Committee met and examined the credentials as sent in by the different county societies and recommends to the House of Delegates that the list made from the credentials be accepted as the official roll call of the House of Delegates."

H. ROYER, M.D.,
H. L. CLARKE, JR.

A motion was made that the report of the Credentials Committee be accepted. The motion was seconded and carried.

The chair called for the reading of the minutes of the last meeting.

A motion was made that the reading of the minutes be dispensed with and that they be approved as published. The motion was seconded and carried.

The chair called for the report of the Council.

Dr. Andrews, President of the Council, reported that the actions of the Council taken at the February 16, 1947, meeting had been published and gave the high-lights of this meeting. He also read the budget for 1948 as recommended to the House of Delegates, and Honorary Memberships which had been presented at the February meeting.

A motion was made that the report of the Council embodying the 1948 budget and Honorary Memberships, as well as the committee reports as published, be accepted. The motion was seconded and carried.

The chair called for committee reports.

A supplemental report of the committee on Prepayment Medical Care was read by Dr. A. J. Offerman.

General discussion followed and Dr. Offerman answered questions relative to the present and future operation of the plan.

A motion was made that the supplemental report and the proposed resolutions be accepted. The motion was seconded and carried.

A motion was made that this report be published in the Nebraska State Medical Journal. The motion was seconded and carried.

Dr. A. J. Offerman asked for permission of the floor to read a supplemental report of the Planning Committee. The chair asked Dr. Offerman to yield the floor to Mr. M. C. Smith in order that he might make his report and resume his duties relative to the convention.

Mr. M. C. Smith gave the report of the Medical Service Committee at the request of Dr. E. B. Reed, Chairman of the Committee, who was called out of the state.

Dr. A. J. Offerman then read the supplemental report of the Planning Committee.

A motion was made that the fee schedule be laid over until tomorrow's session in order that the members might have a chance to study it. The motion was seconded and carried.

A short recess was called by the chair for the purpose of selecting a Nominating Committee.

The meeting was again called to order by the chair.

The delegates from each councilor district were called upon to name their selections for their districts. These selections were as follows:

1st District—O. J. Cameron, Lincoln
2nd District—E. W. Hancock, Lincoln
3rd District—H. R. Miner, Falls City
4th District—W. E. Wright, Creighton
5th District—G. W. Sullivan, St. Edward
6th District—J. M. Woodard, Aurora
7th District—J. Bixby, Geneva
8th District—H. J. Panzer, Bassett
9th District—W. J. Arrasmith, Grand Island
10th District—E. F. Leininger, McCook
11th District—C. F. Heider, North Platte
12th District—W. Max Gentry, Gering

A motion was made and seconded that these men be selected as the Nominating Committee. The motion carried.

The chair made the appointment of Dr. Bixby as temporary chairman of the Nominating Committtee and asked him to later make the announcement as to the time the committee would meet. He also announced that all Nominating Committee meetings would be held in Parlor F — in accordance with the printed announcement in the program.

The House stood adjourned until 8 o'clock Wednesday, April 30, 1947.

April 30, 1947

The second session of the House of Delegates was called to order by Dr. Rudolph F. Decker, Speaker of the House of Delegates, at 8 o'clock in Parlor B, Paxton Hotel, Omaha, Nebraska. Thirty-five members were present.

The chair appointed Dr. J. D. Bradley to read the minutes of the first session and they were approved as read.

Dr. C. F. Heider, North Platte, was seated on the Nominating Committee to represent the 11th District.

The report of the Board of Councilors was read by Dr. Chas. Way, secretary of the Council.

General discussion relative to the raising of the annual dues of the association ensued.

A motion was made that the actions of the Council be approved with the exception of the recommendation of raising the dues to $30.00 a year, this recommendation to lay over until tomorrow's session. The motion was seconded and carried.

The chair called for any further committee reports which had not previously been heard.

The report of the Planning Committee, together with the fee schedule submitted by this committee, was next considered.

A motion was made that the confidence of the House of Delegates be extended to the Planning Committee and that they be authorized to continue negotiations with the Veterans Administration and adopt the fee schedule in its final form. The motion was seconded and carried.

Reports of special committees was next called for by the chair.

Dr. J. D. Bradley, member of the committee appointed for the revision of the Constitution, presented the proposed new Constitution to the House.

In accordance with the present Constitution and By-Laws of the Association, the chair ruled that this matter should lay over until the next Annual Assembly of the association.

Dr. Bradley then presented the proposed By-Laws to the House of Delegates, and the chair stated that in accordance with proper procedure the By-Laws should lay on the table until tomorrow morning's session, suggesting that all delegates diligently study them in order that they may be acted upon tomorrow.

There being no other special committee reports, the chair called for new business.

Dr. A. J. Offerman called the attention of the House to the necessary selection by the House of a Director Designate for Nebraska Medical Service, and suggested the name of Dr. Howard Hunt as the director to fill the coming vacancy.

The chair ruled that this matter would be taken up tomorrow morning at the time of election of officers.

The chair made the announcement that the Council would meet immediately after adjournment of the House in Parlor F.

The House stood adjourned until 8 o'clock Thursday, May 1, 1947.

May 1, 1947

The third and final session of the House of Delegates was called to order by the Speaker at 8:10 a.m., May 1, 1947, in Parlor B, Hotel Paxton, Omaha, Nebraska. Registration showed 34 members present.

The minutes of the second session were read by Dr. Chas. W. Way and approved as read.

Dr. Max Gentry read the following report of the Nominating Committee:

"Mr. Speaker:

The Committee on Nominations has met in accordance with instructions and now reports its nominations as follows:

President-Elect—Dr J. E. M. Thomson
Vice Presidents (2)—Dr. M. H. Carrig and
  Dr. Earl Farnsworth
Councilors:
  8th District—Dr. R. R. Brady (to fill vacancy
    due to resignation by Dr. O. W. French)
  9th District—Dr. C. H. Sheets
  10th District—Dr H. S. Andrews
  11th District—Dr. Harvey L. Clarke, Jr.
  12th District—Dr. Ted E. Riddell
Delegate to A.M.A.—Dr. K. S. J. Hohlen
Alternate Delegate to A.M.A.—Dr. J. Bixby
Speaker, House of Delegates—Dr. Rudolph F. Decker
Committee on Journal and Publication—Dr. J. C. Thompson
Delegate to North Central Conference—Dr. Floyd Rogers
Representatives on Board of Nebraska Medical
  Service (2)—Dr. Howard Hunt and Dr. Ed Walsh

Respectfully submitted,
J. BIXBY, Chairman,
Committee on Nominations
W. MAX GENTRY,
Acting Secretary.

A motion was made and seconded that the report of the Nominating Committee be accepted. The motion carried.

The chair called for nominations from the floor for each of the offices. There were no nominations presented.

A motion was made that in as much as there were no opposing candidates that the rules be suspended and the secretary cast the unanimous ballot of the assembly for the nominees. The motion carried.

The secretary cast the unanimous ballot for the nominees and the following became the newly elected officers of the Nebraska State Medical Association:

President-Elect—Dr. J. E. M. Thomson, Lincoln
Vice-Presidents—Dr. M. H. Carrig, Bloomfield,
 and Dr. Earl Farnsworth, Grand Island
Councilors:
 8th District—Dr. R. R. Brady, Ainsworth
 9th District—Dr. C. H. Sheets, Cozad
 10th District—Dr. H. S. Andrews, Minden
 11th District—Dr. Harvey L. Clarke, Jr., North Platte
 12th District—Dr. Ted E. Riddell, Scottsbluff
Delegate to A.M.A.—Dr. K. S. J. Hohlen, Lincoln
Alternate Delegate to A.M.A.—Dr. J. Bixby, Geneva
Speaker. House of Delegates—Dr. Rudolph F. Decker, Byron
Committee on Journal and Publication—Dr. J. C. Thompson, Lincoln
Delegate to North Central Conference—Dr. Floyd Rogers, Lincoln
Representatives on Board of Nebraska Medical Service—Dr. Howard Hunt and Dr. Ed Walsh, Omaha

Dr. Clayton Andrews read the report of the Council.

A motion was made and seconded that the actions of the Council be approved. The motion carried.

A motion was made that a word of greeting be sent to Dr. R. B. Adams expressing sympathy at his illness and telling him that he was missed at the meeting. The motion was seconded and carried.

The chair appointed Drs. Joe Bixby and Harold S. Morgan to find Dr. J. E. M. Thomson, President-Elect, and present him to the House.

Drs. Bixby and Morgan introduced Dr. Thomson to the House and Dr. Thomson spoke briefly, expressing his appreciation for the honor.

The chair stated the next order of business was consideration of the proposed By-Laws, and suggested that they be read by Dr. J. D. Bradley a chapter at a time. At the end of the reading of the chapter, any proposed amendments should then be made from the floor.

Chapter I — Membership — was read by Dr. Bradley.

A motion was made and seconded that Section 3 of Chapter 1 and the last sentence in paragraph 1, Section 5, Chapter I, be stricken from the By-Laws. The motion carried.

Chapter II — Assessments and Expenditures — was read by Dr. Bradley. No amendments were offered.

Chapter III — Ethics and Discipline — was read by Dr. Bradley. No amendments were offered.

Chapter IV — Annual Assembly — was read by Dr. Bradley.

A motion was made to add the following to the last sentence in Section 2, Chapter IV: "provided this charge of $5.00 shall not apply to residents, interns, and members in good standing of other state associations." The motion was seconded and carried.

Chapter V — Special Meetings — was read by Mr. Bradley. No amendments were offered.

Chapter VI — Delegates—was read by Dr. Bradley. No amendments were offered.

Chapter VII—House of Delegates—was read by Dr. Bradley.

A motion was made that the last two words in Section 5, page 17, "or rejection" be stricken from the section. The motion was seconded and carried.

A motion was made that Section 6 be amended to read: "Twenty delegates shall constitute a quorum for the transaction of business." The motion was seconded and carried.

A motion was made that the entire Section 9, Chapter VII, be deleted. The motion was seconded and carried.

Chapter VIII — Election of officers — was read by Dr. Bradley.

A motion was made that paragraph 2 of Section 1 be stricken and the wording of the old By-Laws be inserted. The motion was seconded and carried.

A motion was made to add the following after the word "elect" in Section 3: "provided that when there is only one nomination for each office it may be by acclamation." The motion was seconded and carried.

A motion was made that the following words be deleted from Section 1, paragraph 1: "and a member of the House of Delegates for the preceding year." The motion was seconded and carried.

Chapter IX — Duties of Officers — was read by Dr. Bradley.

A motion was made that the first sentence of Section 4 be amended to read: "The Speaker of the House of Delegates shall preside at all sessions of the House of Delegates, shall appoint all reference committees with the approval of the House of Delegates, and shall perform such duties as custom and parliamentary procedure may require." The motion was seconded and carried.

A motion was made to delete the last paragraph of Section 11 which reads: "The House of Delegates shall present a summary of its transactions to the general meeting during the last session of each Annual Assembly." The motion was seconded and carried.

Chapter X—Board of Trustees—was read by Dr. Bradley. No amendments were offered.

Chapter XI—Board of Councilors—was read by Dr. Bradley. No amendments were offered.

Chapter XIII—Standing Committees and Their Duties—was read by Dr. Bradley. No amendments were offered.

Chapter XIII—Component Societies — was read by Dr. Bradley. No amendments were offered.

Chapter XIV—The Journal—was read by Dr. Bradley. No amendments were offered.

Chapter XV—Rules of Order—was read by Dr. Bradley. No amendments were offered.

Chapter XVI—Amendments—was read by Dr. Bradley.

A motion was made that the words "and voting on the question" be inserted so that this chapter would read: "These By-Laws may be amended at any Annual Assembly by a two-thirds vote of the members of the House of Delegates present and voting on the question, provided a quorum of the House of Delegates is present, and further provided that the proposed amendment has been presented in writing in open meeting of the House of Delegates and lain upon the table for one day."

Chapter XVII—Repeal—was read by Dr. Bradley. No amendments were offered.

The chair called for any further amendments.

A motion was made that proper corrections be made throughout the By-Laws wherever reference was made to the calling of special meetings of the House of Delegates by deleting the words "President" and "Board of Trustees." The motion was seconded and carried.

A motion was made that the proposed By-Laws, as amended, be adopted. The motion was seconded and carried. The chair declared the motion carried and the By-Laws, as amended, adopted.

The chair stated the next order of business would be the fixing of the place of meeting for next year.

Dr. H. S. Morgan extended an invitation for the Nebraska State Medical Association to meet in Lincoln in 1948.

Mr. M. C. Smith read a letter which he had received from Mr. A. Q. Schimmel of Hotel Cornhusker, Lincoln, inviting the association to use the Cornhusker for the meeting in 1948 and also outlining the terms offered by the hotel. Among the provisions was a charge of $10.00 a day for the use of space which the proposed to put into effect for the 1948 meeting. Lengthy discussion followed by a number of delegates in opposition to the payment of any such charge to the Cornhusker or any other hotel.

Dr. Lowell Dunn extended an invitation to the association to again meet in Omaha for the 1948 Annual Assembly.

A motion was made that the Annual Assembly be held in Lincoln in 1948 with the provision that that board of Trustees be given the authority to change the meeting to Omaha, if proposed arrangements can not be made in Lincoln. The motion was seconded and carried.

A motion was made that the secretary send the proper letters to the Hotel Paxton for their excellent service and many courtesies rendered the association during the meeting, and to the Omaha-Douglas County Medical Society for their cooperation. The motion was seconded and carried.

The chair expressed his appreciation for the cooperation of the House of Delegates during the entire session.

A motion was made to adjourn. The motion was seconded and carried.

SUPPLEMENTAL REPORT OF THE PREPAYMENT MEDICAL CARE COMMITTTEE

The voluntary prepayment medical care plans, sponsored by the State and County Medical Societies, were all organized and developed in good times, at the top of the curve of the economic cycle.

When will the next depression arrive?

Probably sooner than we think.

The prepayment medical care plans will soon face: "Trial by Depression." Unemployment. Loss of membership and increased utilization. These will make great demands on our reserves or surplus.

What can we do to make our plans strong enough to carry through a long, hard depression. We have the answer to that in the minds and in the hearts of the members of this Association.

In the language of the insurance expert there are two kinds of surplus: 1. Invested surplus represented by Government bonds and other securities.

2. Operating surplus, represented by the willingness of the members of the Nebraska State Medical Association to accept "Pro Rata" agreement.

The Pro Rata agreement simply stated means this:

If during any accounting period the income of the plan is less than the expense of the plan, the participating physician would agree to accept a pro rata reduction in the schedule of benefits for services rendered. For example: If in the first quarter of 1951, we are in a period of depression. Our income is $90,000.00 and our expenses are $100,000.00, that would mean a pro rata reduction of 10% and the benefit for an appendectomy would be $90.00 instead of $100.00. A $90.00 fee would be a good benefit for an appendectomy in a time of depression.

I quote from an article entitled, "Seven Fundamental requirements of insurance applied to voluntary prepayment medical care plans," written by Dr. Frank G. Dickinson. Director of the Bureau of Medical Economic Research of the A.M.A. and published in the Journal of the A.M.A. February 15, 1947.

"It is not enough that the plan has completed one year, or five years, with a reserve fund on hand. It must be strong enough to weather a great depression during which the loss and expense ratios might rise rapidly even though the general health situation was favorable. Reserve funds developed in prosperous times will doubtless be needed to offset unpredictable increases in loss and expense ratios during depressions. For this reason the "pro rata" feature is excellent; it provides that the participating physicians must accept less than their approved fees if the income of the plan for the year is less than the amount of the total approved fees. This transfer of some of the risk, especially in a year of depression, from the plan to the participating physicians make them underwriters and should make their plan a tower of strength during periods of unemployment. This feature would enable any plan to comply fully with this seventh essential requirement of insurance because, even though certain health risks may not be measurable or predictable, the plan is secure. Premiums need not be equal each year to the total approved fees of the participating physicians for services rendered members during that year. The physician is, in the language of the insurance world, a reinsurance underwriter. Without this feature a plan might be a house of cards instead of a tower of strength at the bottom of the business cycle. Although the "pro rata" feature may be hard on the doctor, it makes the plan stronger than it would be if it merely complied with the seven fundamental requirements of insurance. The stronger the plan, the better it is for the doctor."

RESOLVED, That the Prepayment Medical Care Committee recommends to the House of Delegates:

1, That the "Pro Rata" feature be adopted by the Nebraska Medical Service, to preserve the financial stability of the Plan in the event of a long, hard depression.

2, That the Nebraska Medical Service adopt the "Service Plan" for the low income groups and retain the indemnity plan for the over income groups.

I move the adoption of this Supplemental report.

ARTHUR J. OFFERMAN, M.D.,
Chairman,
Prepayment Medical Care Committee.

THE NATIONAL HEALTH PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION

The medical profession, through the American Medical Association and its component state and county societies, recognizes its responsibility to assume a role of leadership in assuring the constant improvement in the health of the American people.

In the same spirit that the individual physician traditionally has placed the welfare of the patient before all other considerations, the medical profession places the welfare of the American public first.

At the same time, it is recognized that the ultimate health of the American people depends upon many factors in addition to medical care. These factors have been acknowledged in the National Health Program of the American Medical Association.

It is also recognized that the conditions which affect health and the problems which must be solved vary from community to community. Hence, allowance has been made for local study, planning and action.

The 10-Point national program has been developed for the guidance of state and county medical societies. Upon it, they are basing plans suited to the situations in their own areas. With the voluntary cooperation and support of the American people, the medical profession can and will bring constant improvement in medical service and health opportunities to all.

1. Nutrition—Housing—Clothing—Recreation:

The American Medical Association urges a minimum standard of nutrition, housing, clothing and recreation as fundamental to good health and as an objective to be achieved in any suitable health program. The responsibility for attainment of this standard should be placed as far as possible on the individual, but the application of community efforts, compatible with the maintenance of free enterprise, should be encouraged with governmental aid where needed.

2. Preventive Medicine — Health Departments:

The provision of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs is recognized as essential in a health program. The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas shall control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function, since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered. Medical care to those unable to provide for themselves is best administered by local and private agencies with the aid of public funds when needed. This program for national health should include the administration of medical care, including hospitalization to all those needing it but unable to pay, such medical care to be provided preferably by a physician of the patients choice with funds provided by local agencies with the assistance of federal funds when necessary.

3. Prenatal Care—Childbirth:

The procedures established by modern medicine for advice to the prospective mother and for adequate care in childbirth should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid should be supplied with the funds administered through local or state agencies.

4. Infant Welfare—Child Care:

The child should have throughout infancy proper attention, including scientific nutrition, immunization against preventable disease and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child care and infant welfare stations administered under local auspices with support by tax funds whenever the need can be shown.

5. Hospitals—Health—and Diagnostic Centers:

The provision of health and diagnostic centers and hospitals necessary to community needs is an essential of good medical care. Such facilities are preferably supplied by local agencies, including the community, church and trade agencies which have been responsible for the fine development of facilities for medical care in most American communities up to this time. Where such facilities are unavailable and cannot be supplied through local or state agencies, the federal government may aid, preferably under a plan which requires that the need be shown and that the community prove its ability to maintain such institutions once they are established (Hospital Survey and Construction Act).

6. Voluntary Prepayment Plans for Hospital and Medical Care:

A program for medical care within the American system of individual initiative and freedom of enterprise includes the establishment of voluntary nonprofit prepayment plans for the costs of hospitalization (such as the Blue Cross plan) and voluntary nonprofit prepayment plans for medical care (such as those developed by many state and county medical societies). The principles of such insurance contracts should be acceptable to the Council on Medical Service of the American Medical Association and to the authoritative bodies of the state medical associations. The evolution of voluntary prepayment insurance against the costs of sickness admits also the utilization of private sickness insurance plans which comply with state regulatory statutes and meet the standards of the Council on Medical Service of the American Medical Association.

7. Veterans' Needs for Hospital and Medical Care:

A program for national health should include the administration of medical care, including hospitalization, to all veterans, such medical care to be provided preferably by a physician of the veteran's choice, with payment by the Veterans Administration through a plan mutually agreed on between the state medical association and the Veterans Administration.

8. Research for Advancement of Medical Science:

Research for the advancement of medical science is fundamental in any national health program. The inclusion of medical research in a National Science Foundation, such as proposed in pending federal legislation, is endorsed.

9. Volunteer Health Agencies — Philanthropic Funds:

The services rendered by volunteer philanthropic health agencies such as the American Cancer Society, the National Tuberculosis Association, the National Foundation for Infantile Paralysis, Inc., and by philanthropic agencies such as the Commonwealth Fund and the Rockefeller Foundation and similar bodies have been of vast benefit to the American people and are a natural outgrowth of the system of free enterprise and democracy that prevail in the United States. Their participation in a national health program should be encouraged, and the growth of such agencies when properly administered should be commended.

10. Health Education in Prevention of Disease:

Fundamental to the promotion of the public health and alleviation of illness are widespread education in the field of health and the widest possible dissemination of information regarding the prevention of disease and its treatment by authoritative agencies. Health education should be considered a necessary function of all departments of public health, medical associations and school authorities.

COUNCIL ON MEDICAL SERVICE, A.M.A.

BILLS IN CONGRESS

S. 1197 by Mr. Gurney of South Dakota, April 30. A bill to provide additional inducements to physicians and surgeons to make a career of the United States naval service, and for other purposes. Referred to the Committee on Armed Services.

Comment: In the last bulletin two bills were reported providing for the procurement of physicians and surgeons by the Army. This bill offers to do as much for the Navy.

S. 1290 by Mr. Saltonstall of Massachusetts (for himself, Mr. Smith of New Jersey, Mr. Fulbright of Arkansas, Mr. Lodge of Massachusetts, Mr. Baldwin of Connecticut, and Mr. Ives of New York), May 15. A bill to provide for the general welfare by enabling the several States to make more adequate provision for the health of school children through the development of school health services for the prevention, diagnosis, and treatment of physical and mental defects and conditions. Referred to the Committee on Labor and Public Welfare.

Comment: Companion bill to H.R. 1980, sponsored by Congressman Howell of Illinois. This bill was drafted by Mr. Hecht, president of Parents Magazine, with the aid of the Children's Bureau. We reported it in Bulletin No. 5. It provides federal funds for assisting each state "in providing and maintaining school health services for the prevention and diagnosis of physical and mental defects and conditions, and (especially in rural areas and in areas suffering from severe economic distress, the treatment of such defects and conditions."

H.R. 3215 by Mr. Andrews of New York, April 25. A bill to revise the Medical Department of the Army and the Medical Department of the Navy, and for other purposes. Referred to the Committee on Armed Services.

Comment: Establishes in the Medical Department of the regular Army the Medical Service Corps which shall consist of the Pharmacy, Supply, and Administration Section, the Medical Allied Sciences Section, the Optometry Section, and such other sections as may be deemed necessary. Another section of the bill carries provision for the creation of a similar Medical Corps in the Navy. On May 14 the bill was reported out of Committee (Report No. 387).

H.R. 3252 by Mr. Andrews of New York, April 29. A bill to provide additional inducements to physicians and surgeons to make a career of the United States naval service, and for other purposes. Referred to the Committee on Armed Services.

Comment: Companion bill to S. 1197 (reported above).

HEARINGS ON S. 545, NATIONAL HEALTH BILL

May 21

The series of hearings to be held on S. 545, the National Health Bill, began Wednesday, May 21 at 9:30 A.M. Present from the Committee were Senator Smith, Chairman, Senators Donnell, Murray and Pepper. Senator Taft, one of the sponsors of the bill, opened the meeting, briefly outlining his measure. He stated that the Government could help states provide free medical care for persons who could not afford it. Compulsory national health insurance is nothing more than "taxation to provide free medical care for all people." "When you proceed to provide free care for the people who are perfectly able to pay for it themselves, you socialize the field," Taft insisted. He declared further that the Murray bill (S. 1320) would make every physician an employee of the Federal Government." Freedom to choose a doctor is a major part of our system of free enterprise.

Members of the Committee asked him many questions and Senator James E. Murray averred that the Taft bill started with a "magnificent promise" and "pretended to assure medical care to all people." "Actually," he said, "it only makes limited medical services available and only to people willing to accept public charity." He charged that if people were to accept this "odious principle of charity" this bill would start us on a road to high appropriations.

Senator Taft commented that for the state to help people pay their debts is not charity.

The second witness of the morning was Dr. R. L. Sensenich, Chairman, Board of Trustees, A. M. A. who pointed to the devotion of the Association throughout 100 years of existence to the improvement of the standards of quality of medical service. In close cooperation with health activities of government agencies and private and public health groups, studies in undergraduate and postgraduate education in medicine, creation of facilities for the provisions of best medical care for the indigent and low-income group led to the ten-point program for the continued development of the best health for all people.

Having observed the standards and methods of distribution of medical care in other nations, and benefited by the experience and advice of investigators trained in health activities, it is evident that social legislation containing compulsions cannot be enacted without infringing on the basic quality of American freedom. Government administration is too far removed to be applicable to the local community and individual needs. To attain the broadest and most effective approach to the problem, a health program must rest on voluntary effort with legislation providing assistance.

S. 545 more nearly approximates the health program set forth by the A.M.A. The provisions of this bill are well planned and provide a sensible approach to meet the needs of the whole nation. Briefly, the bill provides a plan and a means to permit the broadest variation at local levels and meets the needs of the lower income group without an expensive system of regimentation and the inevitable destruction of the quality of medical service.

The third and last witness of the morning was Dr. E. J. McCormick, Chairman, Council on Medical Service, A. M. A., who stated in his support of the Taft bill (S. 545) that it aims to preserve and foster existing agencies and to insure the continued independence of the American people and the medical profession. It plans to bring together all federal health activities into a single agency headed by an outstanding physician.

The problem of better health is not a single problem nor merely a financial problem, but is one with many aspects and includes many fields of activities. The present program of the A. M. A. takes into consideration the many factors affecting the health of the people: Nutrition, clothing and recreation; preventive medicine; health departments; prenatal and maternity care; immunization and other children's services; facilities; research; education and methods of payment.

The provision to assist states in making surveys of medical care preparatory to the formulation of a plan extending such care is commendable. It assumes that the first step is the determination of the needs. "Much has been said to belittle the scope of the voluntary prepayment medical plan." Evidence of the desirability of such plans is shown by the phenomenal growth both in the number of plans and in enrollment. Whereas some fifteen approved plans operating in ten states were listed in 1942, we can now point to 94 organized in 37 states and in the District of Columbia. Skeptics point to the failure of voluntary plans in Europe and the development of compulsory plans. "We need not model our provision of health care for the American people on the failing technic based on European dictatorship and compulsion; we can find a voluntary way compatible with true American democracy."

May 22

The following representatives of the New York Academy of Medicine were in attendance: Drs. George Baehr, Iago Galdston, and Howard Craig. Dr. George Baehr was the spokesman, aided by Dr. Galdston, and placed on record for the Academy a statement of approval of the principles embodied in S. 545. He indicated the desirability of certain amendments essential in their opinion for accomplishing the objectives of the bill. The Taft bill acknowledges the problem of the uneven distribution of health and medical services in many parts of our land.

The Academy opposes compulsory medical insurance because of its insuperable difficulties in administration and because of its inability to fulfill the promises of unlimited medical care. Contrary to the W-M-D bill, it encourages the gradual development of local and statewide medical insurance programs. Provisions are made for the organization of newer and better forms of medical practice to meet the new conditions created by the spread of prepayment plans.

He criticized S. 545 because its wording permits the interpretation that it is designed as a "charity" or "relief" measure. Other criticisms were leveled at the omission of any reference to medical standards; provisions for grants-in-aid for experiments in newer technics to provide group medical practice; provisions clearly defining the responsibility and authority of the administrator.

Appropriation for the prevention and control of any one disease should be omitted. All funds for grants-in-aid for medical research should be administered by the National Institute of Health until the National Science Foundation is established.

Finally, the bill should be revised so as to fit into a new department of government if created by either S. 712 or S. 140.

May 23

The third day of the hearings the Blue Cross was invited to appear and J. Douglas Coleman, Director of Associated Hospital Service and J. C. Ketchum, Executive Vice President, Michigan Medical Service, testified.

Mr. Coleman briefly reviewed the history of the Blue Cross, noting particularly its marvelous growth as exemplified in a series of tables submitted. He focused his remarks upon the following major topics:

1. Definition and Scope of Blue Cross Plans:

2. Specific accomplishments of Blue Cross Plans, and a discussion of certain recent developments which indicate their continued virility and increasing potentiality for public service; and

3. Comment upon certain provisions of the Bill with which the Blue Cross Plans are directly concerned.

"In the course of his testimony he said: "We take violent issue with those who feel that universal availability of service can only be attained with centralized financing and centralized control. We believe just the opposite is true. Centralized health services, or centralized anything else, tend to become self-limiting.

"We know that the ever-expanding horizon of medical science and health service provides a challenge to the fullest joint effort of all agencies—Federal, State, local, and voluntary.

"We urge the passage of Senate Bill 545 as the most productive step which can be taken now by the Federal Government to stimulate sound progress toward our mutual objective of more and better health service to all the people."

Mr. Ketchum extended his testimony to cover Voluntary Health Care Plans in general and the plans under which the Veterans Administration is providing medical care to the veterans. He submitted a prepared statement without reading it because of the lateness of the hour. Included with his statement are tables showing the development of the Michigan Service in providing medical care for the veterans. He limited his statement on S. 545, particularly to the provisions for survey and extension of existing health care, medical, surgical and hospital facilities.

The provisions of these sections should result in the integration and cordination of health services within a state between all units of government to provide health care for the medically indigent. He pointed out that S. 545 makes provision for extension of voluntary health care plans to federal employees through payroll deductions.

Wednesday, May 28—Hospital Day at the hearings on the National Health Bill

The American Hospital Association was represented by its president, John Hayes, and executive secretary, George Bugbee, speaking strongly in favor of S. 545. Mr. Hayes pointed out that the Association believed that proposals for compulsory health insurance would, in effect, be a nationalization of health services and warned that the country would not subscribe to this pattern. "S. 545," he said, "proposes federal assistance to states for the establishment of medical and hospital services whose low incomes make it impossible for them to have adequate care." He further interposed that care to needy veterans would be provided in community hospitals at less expense than through a federal system of special hospitals.

He presented a three-point program adopted by the House of Delegates of the A.M.A. providing for extension of voluntary prepayment plans; government aid for public and voluntary hospital construction; and local, county, state and federal aid for indigents' hospital and medical care.

He pointed out that the health functions of the federal government are of sufficient importance to justify their separation into a unit headed by persons trained and experienced in health work. He stressed the provision in S. 545 for local participation and administration. By this plan a community will feel that it is carrying out the program to its best judgment. Strong opposition was voiced to the trend for separate hospitals for the poor which has resulted from government effort to provide care for low income groups in government hospitals. The Association approves provisions for making health services available to areas which do not now have them.

Mr. Hayes submitted on behalf of the Association fifteen specific recommendations and suggested amendments which would strengthen the programs and make them more workable.

The Catholic Hospital Association was represented by its president, the Rev. Alphonse M. Schwitalla, S.J., who said he views S. 545 as approaching the problem of national health along a new avenue. He referred to the measure as "plunging boldly and courageously" into the problem of coordinating Federal health activities. The reorganization planned would be conducive to greater effectiveness and economy. In his endorsement of S. 545 he gave three main reasons: The measure undertakes to provide health care to those most in need; the insured cooperation between private and public agencies providing such care; while health care is a national problem, it gives full consideration to local differences and to individual rights. Besides these features there are several of lesser importance but equally far-reaching. The legislation offers a variety of methods for diffusing health care benefits; ensures freedoms in health care; initiates an orderly procedure in the development of a national health program as needs and experience indicate; eliminates complicated control over health services; understands the requirements of different classes of patients; and finally expresses respect and cooperation between government and the governed, between tax-supported and private agencies.

The Protestant Hospital Association was represented by its president, the Reverend John G. Martin. Unfortunately we were unable to procure a copy of his testimony. He endorsed S. 545 and emphasized the objections his organization has to government interference.

The fourth witness for the day was Dr. L. Howard Schriver, president, Associated Medical Care Plans, who agreed with the opinions voiced by the American Medical Associaton and the Blue Cross Commission. He presented an outline on the origin, growth and development of AMCP, explaining how its functions by dealing with the problems of more adequate distribution of medical services, and the ways and means of implementing the several plans.

Dr. Schriver was also authorized by the Ohio State Medical Association to appear and to endorse S. 545 in principle on its behalf. The Association believes that it is a sound, practical program for improving and expanding public health activities of the Federal government and for establishing a plan of federal aid to states to provide adequate health and medical services. He opined that S. 545 is in accord with certain basic principles and policies essential to a Federal Health Program. Messrs. Charles Nelson, Executive Secretary, Ohio State Medical Association, and Frank Smith, Director, Associated Medical Care Plans, accompanied Dr. Schriver.

Thurdsay, May 29—Dentists' Day

Dr. Sterling V. Mead, President, American Dental Association, and Dr. Carl O. Flagstad, Chairman, Committee on Legislation, A. D. A. appeared. Dr. Mead favored the philosophy of most of the provisions of the Taft bill but suggested amendments to give greater freedom to states in the direction and extent of the program. He opposed any federal health program at national level and advocated the extension of dental care through research and dental health education. He favored provisions extending dental care to children whose parents were unable to meet the cost of such care, but emphasized that such a program should be at community level.

He submitted with his statement a series of tables showing:

1. Estimated funds available per child for dental program under S. 545, by regions.

2. Estimated number of children by age groups, in the U. S., July 1, 1952.

3. Percentage of children attending school by age for the U. S.: 1940 Census.

4. Number and percentage distribution of total population, children aged 5 to 19, and active dentists, by regions; 1940 Census.

5. Ratio of total population per dentist and children per dentist, by regions.

6. Number and distribution of children aged 5 to 19, dentists, rations of children per dentist and total population per dentist, by region and state: 1940 Census.

7. Estimated funds available per child for dental program under S. 545 by states.

Dr. Flagstad commended the authors of S. 545 on their efforts to produce overall health bill which is more nearly in accord with the dental profession's concept than any other previous measure. The A. D. A. favors the principle of grants-in-aid to assist states in meeting their health needs. It agrees that dental health programs for children should be a major concern and that funds should be used first for dental care and treatment of children whose families are unable to pay for such costs. Further, it approves that responsibility for dental health programs shall rest with the state and its communities. Finally, dental care should be made available to all regardless of income or geographic location. Amendments were offered for consideration, setting forth a statewide program designed to provide periodic teeth inspection in all schools; to provide dental care and treatment of all children in schools whose family is unable to pay for the whole cost of such services.

On Wednesday afternoon a subcommittee of the House Committee on Expenditures in the Executive Departments, under the Chairmanship of Congressman Harness of Indiana, began investigating activities of government employees in what they characterized as propaganda. The first witness called was Dr. Derryberry of the U. S. Public Health Service, then Dr. Hilleboe of U. S. P. H. S. and Mr. Pohlman of the Department of Agriculture. They were questioned as to their authority for appearing at certain workshop conferences held during the last year in different places in the United States. They were asked to describe what occurred at these conferences and what part they took. The Committee announced that it would continue its investigation, the dates to be announced later.

☆ ☆ ☆ BUY ☆ ☆ ☆
U. S. Saving Bonds

NEBRASKA STATE DEPARTMENT OF HEALTH

What Is Clean, Safe Milk?

The production and distribution of milk is a business requiring great care in the handling of the product, as it is highly perishable. Inasmuch as milk can be readily contaminated, control of production and distribution is necessary in the form of sanitary regulations. Milk that is produced and handled from farm to consumer, where sanitary precautions have been taken to make it a clean, wholesome product, is designated a Grade A milk.

In the production of Grade A milk, it must come from clean and healthy cows. It is produced under conditions that will insure freedom from dust, dirt and fly contamination in both the dairy barn and milk house. The dairy barn construction is such that it can be easily cleaned. Facilities are provided in the milk house to wash and sanitize utensils and equipment easily and quickly, and to store them in a place protected from contamination. Adequate cooling facilities are provided in the milk house so that the temperature of the milk can be lowered immediately after milking.

It is the bacteria in milk that indicate the care with which it is produced and handled. Some of these bacteria can cause milk to spoil in the form of souring. Other bacteria, that may find their way into milk, can be harmful, disease-producing organisms. Such organisms can come from the toilet, and, through the medium of the fly, can contaminate milk utensils and equipment. For this reason, toilets should be fly-tight, and every means should be utilized, by screening, by the elimination of fly-breeding places, by proper sprays, etc., to control the fly hazard.

Water supplies should be safe in order that no harmful bacteria may be introduced into milk from contaminated water in the process of washing and rinsing utensils.

Carriers of disease organisms, or milk handlers who may be ill, can also introduce harmful organisms into a milk supply.

In a Grade A milk supply, every effort is made to keep harmful bacteria out of the milk, but in any raw milk supply there is a potential hazard of contamination of the product.

Pasteurization will kill any disease-producing organisms that may at any time be introduced into a milk supply. Pasteurization, a process named after the great scientist, Louis Pasteur, means the heating of every particle of milk to a temperature of 143° F. for 30 minutes, or to a temperature of 160° F. for 15 seconds. This process, when properly performed, and when the milk is properly handled after pasteurization, to prevent recontamination, makes all milk, so processed, safe milk.

However, pasteurization does not make a dirty milk clean. A clean quality of milk can only be provided by having it produced and handled under sanitary standards.

In brief, the consumer is assured that when Grade A pasteurized milk is used, it not only is a safe milk, but it has the added quality of being a clean milk.

C. W. FAHRENBACH, Milk Sanitarian,
Division of Sanitation,
State Department of Health.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE CASH RECEIPTS AND DISBURSEMENTS

May 31, 1947

Cash on hand May 1, 1947		$58,120.96
Receipts:		
From dues	$22,118.04	
From enrollment fees	703.00	
Taxes deducted from salaries	36.80	
Interest, U. S. Bonds	125.00	
Lancaster County Medical Association	350.00	23,332.84
		$81,453.80
Disbursements:		
Claims paid	$14,456.00	
Administrative expense	3,438.67	
Salary, Executive Director	200.00	
Secretary's fee	75.00	
Medical Adviser	175.00	
Attorney	75.00	
Advertising	880.17	
Printing and stationery	179.39	
Hospital records	14.00	
Home office travel and expense	32.50	
Collection expense	6.45	
Refunds	202.75	
Exchange	.50	
Taxes paid	2.41	
Postage	13.01	
Dues	10.77	
Subscription	3.00	19,764.62
Cash on hand May 31, 1947		$61,689.18
Bank Balances, May 31, 1947:		
Packers National Bank, Omaha		$60,556.32
First National Bank, Omaha		1,133.86
		$61,689.18

NEBRASKA MEDICAL SERVICE BALANCE SHEET

May 31, 1947

Assets:			
Cash in bank		$61,689.18	
Premiums in process of collection		8,518.27	
U. S. Bonds (cost plus accrued interest)		2,515.05	
Associated Hospital Service, administration expense refund account		1,749.53	$97,108.03
Liabilities:			
Accounts payable, Blue Cross		$ 3,760.90	
Accounts payable, monthly invoices		304.47	
Accrued payroll taxes		108.40	
Claims payable		4,346.00	
Accrued audit expense		200.00	
Unearned premiums		30,959.90	
		$39,679.67	
Reserve for Public Relations Campaign		$ 1,350.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	36,628.36		
		$56,078.36	
			$97,108.03

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSE

May 31, 1947

	Month of May	5 Months to Date
Income:		
From dues	$20,190.88	$87,954.76
From enrollment fees	703.00	3,647.00
Interest, U. S. Bonds	125.00	125.00
	$21,018.88	$91,726.76
Expenses:		
Claims	$12,952.00	$60,750.00
Administrative expense	3,478.93	14,597.19
Salary, Executive Director	200.00	1,000.00
Secretary's fees	75.00	375.00
Medical Adviser	175.00	375.00
Legal	75.00	375.00
Auditing	100.00	500.00
Advertising	82.39	1,720.99
Stationery	-------	10.05
Printing	194.08	1,519.89
Home office travel and expense	32.50	461.86
Dues	10.77	50.58
Postage	13.01	64.22
Taxes and licenses	24.41	62.41
Collection expense	6.45	34.80
Miscellaneous	13.50	50.00
	$17,433.04	$81,946.99
Net Gain	$ 3,585.84	$ 9,779.77

MEMBERSHIP SUMMARY—MAY, 1947

		Subscribers	Dependents	Total
1.	Membership, May 1, 1947	11,436	16,150	27,586
	Additions	975	1,230	2,205
	Cancellations	313	422	735
	Membership, June 1, 1947	12,098	16,958	29,056
2.	Number of groups now enrolled			747
3.	Number of groups added during May			49

MAY ENROLLMENT BY COMMUNITIES

ALLIANCE—1 group, 5 members.
AURORA—3 members.
BEATRICE—3 groups, 42 members.
BENKELMAN—15 members.
BROKEN BOW—2 groups, 12 members.
CAMBRIDGE—1 member.
COLUMBUS—1 group, 9 members.
DICKENS—1 group, 7 members.
ELM CREEK—1 group, 5 members.
FAIRBURY—1 group, 8 members.
FREMONT—1 group, 10 members.
FRIEND—2 groups, 11 members.
GRAND ISLAND—7 members.
GUIDE ROCK—1 group, 2 members.
HARRISBURG—1 group, 39 members.
HASTINGS—2 groups, 66 members.
HEMINGFORD—1 group, 16 members.
HOLDREGE—2 groups, 19 members.
KEARNEY—2 groups, 26 members.
KIMBALL—1 group, 7 members.
LINCOLN—5 groups, 198 members.
MARQUETTE—1 member.
NEBRASKA CITY—6 members.
NORTH PLATTE—3 groups, 42 members.
OGALLALA—4 members.
OMAHA—13 groups, 329 members.
SCOTTSBLUFF—3 groups, 24 members.
STERLING—5 members.
VALENTINE—38 members.
WILCOX—1 member.
YORK—2 groups, 17 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT

May, 1947

Number of claims paid		309
Number of services rendered		337
Females		179
Males		130
Subscribers		110
Dependents		199
Type of Service	Number	Amt. Paid
Anesthesia	6	$ 40.00
Appendectomies	28	2,800.00
Eye	5	127.00
Gall Bladders	6	900.00
General Surgery	16	1,092.50
Gynecology	31	2,905.00
Hemorrhoids	9	365.00
Herniotomies	4	450.00
Minor Surgery	41	320.00
Nose and Throat	8	100.00
Obstetrics	14	885.00
Orthopedics	22	667.00
Pathology	2	30.00
Radiation Therapy	2	60.00
Tonsillectomies	75	2,625.00
Transfusions	4	90.00
Urology	9	295.00
X-rays	41	438.50
Medical	14	339.00
	337	$14,529.00

Amount of claims in process of settlement, $3,346.00

DEATHS

Sherman J. Jones, M. D., Hastings, retired. Born in Illinois in 1861. Graduated from Keokuk (Ia.) Medical College in 1891. Studied abroad in European Clinics for sometime and following his return to the United States he began practice in Nebraska, settling first at Norman, then moving to Minden. In 1910 he located in Hastings. Dr. Jones enjoyed an enviable reputation throughout the countryside, and he served his community in many ways until 1930 when he retired from active practice. He was an honorary member of the Nebraska State Medical Association. Died May 26, 1947. He is survived by his wife.

Richard James Williams, Dunning. Born in Canada in 1870. Graduated from University of Western Ontario Medical College in 1895. Practiced for a time in Canada, then came to the United States where he located in Cleveland. In 1898 he came to Anselmo. Early in 1921 he moved to Dunning where he remained in practice until shortly before he died, May 15, 1947. Surviving are his wife and five children.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The regular meeting of the **Staff of St. Mary Hospital** was held Tuesday, May 6, 1947, following a 6 o'clock dinner.

Program:

"Tuberculosis of the Genito-urinary Tract," Dr. C. F. Heider; "Bronschiectasis," Dr. A. J. Callaghan; "Postoperative Pulmonary Complications," Dr. Leo Anderson, Surgeon, Omaha, Nebr.; "Gross Urinary Hemorrhage," Dr. L. W. Lee, Urological Surgeon, Omaha, Nebr.

The Nebraska Section of the International College of Surgeons held a full day meeting in Lincoln, May 22, 1947, with surgical clinics at three Lincoln Hospitals in the forenoon, with the following program at the Hotel Cornhusker in the afternoon and evening:

1:45 "Carcinoma of the Gallbladder," Dr. Gariepy, Detroit.

2:45 "Intestinal Obstruction," Dr. McCarthy.

3:10 "Bone Tumors," Dr. Frederick Webster.

3:35 "Management of the Rh Negative Mother," Dr. Thierstein.

4:00 "Carotid Aneurysm," Dr. Baca.

7:00 p.m. Dinner.

Remarks by Dr. L. J. Gariepy, Secretary of the United States Chapter, I.C.S.

Address: "Management of Cancer of the Lower Bowel."

Dr. Harry Bacon and Dr. Robert Rowe, Philadelphia.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. C. B. Hayes formerly of Omaha has located at Lyons.

Dr. and Mrs. A. D. Cloyd of Omaha recently returned from a trip East.

Dr. R. L. Weaver has moved to Iowa, and the town of Marquette is now without a physician.

Dr. Eugene E. Simmons of Omaha, announces the association with him of Dr. Robert S. Long.

Dr. Juul Nielsen of Ingleside attended the annual sessions of American Psychiatric Association in May.

Associated with Dr. A. W. Abts at Humphrey is Dr. J. M. Brown, who formerly practiced at Thedford.

Dr. Jacob Krieg, Jr., formerly of Lincoln, has become associated with Dr. Frank T. Herhahn of Scottsbluff.

Dr. Robert C. Byers, Jr., of Fremont and Mrs. Byers were seriously injured in an auto collision early in May.

Dr. R. C. Cowger until recently at Sutton has moved to Grand Island where he is associated with Dr. W. J. Arrasmigh.

Sympathy of the Journal goes to Drs. Heine of Fremont and Hooper on the recent death of their mother, Mrs. Lydia Heine.

Dr. Louis W. Gilbert, formerly of Beatrice has become associated with the Hot Springs Clinic at Hot Springs, South Dakota.

Dr. Frank Wanek formerly of Aurora has located in Gordon. Dr. Wanek is a graduate of the Medical School, Creighton University.

Dr. T. R. McDonnell, a Creighton graduate and Veteran of World War II, has become associated with Dr. M. C. Howard of Omaha.

Dr. Frank R. Barta, of the Department of Psychiatry, Creighton University Medical School, addressed the South Side Kiwanis Club in Omaha in May.

Dr. John L. Gedgoud, Associate Professor of Pediatrics, University of Nebraska Medical College, addressed the Nebraska Dietetic Association in Omaha in May.

Dr. Z. E. Matheny celebrated his 74th birthday on May 28th. The Bellwood Woman's Club assisted by other local organizations sponsored a reception in his honor.

Dr. Hannah Johnson, a 1923 graduate of the University of Nebraska Medical College, who practiced in Seattle, Washington until 1946, has retired from practice and is now living in Omaha.

Dr. Janet F. Palmer and Dr. Richard W. Gray, both of Lincoln, were elected to membership in American Psychiatric Association at its annual meeting in New York the latter part of May.

Dr. Douglas Campbell, son of the late Dr. S. A. Campbell of Norfolk, has become associated with Dr. Palmateer of Madison. Dr. L. L. Bruce, former associate of Dr. Palmatter has retired from active practice.

Dr. A. R. McIntyre, Professor of Physiology and Pharmacology of the University of Nebraska Medical College addressed a meeting of the Alumni Association of the University of Chicago, June 6. The subject was "Curare."

Tuberculosis Abstracts

Chest films of thousands of persons have shown lesions suggestive of early tuberculosis. Even though a fair percentage of these persons have had no tuberculin tests performed, no sputum examined, and no history of symptoms taken to confirm or deny the suspicious film findings, many of them have been labeled as tuberculous. This is scientifically unsound, and we should now take stock of our diagnostic criteria for the clinical determination of early tuberculosis.

WHAT IS EARLY TUBERCULOSIS?

Millions of people in the United States have been examined by means of mass radiography since the early days of World War II. This new technique is rapidly achieving the long-sought goal of x-ray examinations of the lungs of the majority of adults in our country. This objective can easily be reached within five years if all our resources are mobilized and a national plan is executed with speed and efficiency.

Yet a word of caution must be given to prevent indiscriminate diagnoses of pulmonary tuberculosis on the basis of x-ray examination alone.

Specialists in tuberculosis rightly insist that, before final diagnosis, every attempt be made to obtain sputum specimens, and that such specimens be submitted to meticulous examination by direct smear of actual or concentrated sputum and, if this be negative, by culture or guinea pig inoculation. If sputum is not present, a stomach washing should be made and the contents examined by appropriate culture methods in laboratories that employ skilled bacteriologists. In cases of pleural effusion, the same procedure should be followed. This is possible only in an accredited laboratory which has been certified by some impartial central laboratory.

If, after such diligent search, no tubercle bacilli are found, the diagnosis should be limited to "suspected tuberculosis." This does not mean that many of the shadows found on the survey films are not the residue of a tuberculous process that once was active. Nor does it mean that the person should not be followed for several years to observe new evidences of disease activity. Nevertheless, to be scientific in our practice of medicine and to avoid needless distress, we should refer to such persons as "suspects" until such time as tubercle bacilli can be demonstrated. A firm stand of this sort should clarify confused thinking in mass radiography programs. To put it simply and candidly: do not diagnose pulmonary tuberculosis on the basis of an original x-ray film alone.

One must study "suspected" cases by means of a careful history, including recent or present symptoms which are characteristic of tuberculosis. For differential diagnosis it is essential to employ the tuberculin test, using the intracutaneous method properly applied and interpreted by an experienced person. In the presence of a negative tuberculin test, other reasons than tuberculosis must be found for suspected shadows, in spite of characteristic location and configuration. Indeed, even when a cavity is demonstrated on the film, a negative tuberculin test demands that some etiological factor other than tuberculosis be sought as the cause.

The same criteria used in diagnosis must be applied even more rigidly in the treatment of tuberculosis, especially sanatorium care and chest surgery. Persons whose chest films show shadows, discovered by mass radiography, should not be rushed into the sanatorium simply on the evidence of x-ray findings. A period of follow-up by the physician or clinic will determine the presence or absence of tubercle bacilli in the sputum, gastric contents, or pleural fluid.

Because a social stigma unfortunately attaches to a diagnosis of tuberculosis, and personal harm through mental anguish can occur, restraint should be practiced in naming the disease before its actuality can be proved. Even those persons whose diagnoses are confirmed will profit by a period during which they may become accustomed to the idea that they have a serious disease. Such a practice will keep expensive sanatorium beds free for patients who are truly ill and will avoid unnecessary exposure of nontuberculous persons sent to sanatoriums by mistake.

Persons who have tuberculosis which requires sanatorium care cannot be greatly harmed by short delay of treatment; in many instances the disease has been present for some time. The chest surgeon, too, should wait and watch with patience until tubercle bacilli are demonstrated as present in the lungs. This is particularly true of the too easily performed procedure of pneumothorax. Before the normal physiology of respiration is permanently changed by surgical attack, there must be strong evidence that such change and its attendant loss of function will be compensated for by the patient's future control of active disease.

There is yet no evidence in medical literature that the minimal lesion case with negative sputum, negative gastric lavage, or no sputum is benefited by sanatorium care. Rather it is a more realistic procedure to seek out and hospitalize the original positive sputum case which infected the minimal case so recently discovered.

We have placed emphasis in these remarks on the asymptomatic case with negative sputum or negative gastric contents. We must, however, be aware of and watch for "indolent" early tuberculosis. Caution is called for in the follow-up of early cases of tuberculosis that present vague findings and symptoms that are often difficult to elicit and interpret. This is the type of tuberculosis which British chest specialists call "indolent early tuberculosis," of whose prognosis we know little. Often such patients, when placed under sanatorium care, recover rapidly without surgical or special aid. Others deteriorate in the sanatorium in spite of the most expert medical skill and the finest facilities. One wonders if both types of cases would not have pursued the same courses undiscovered and unattended. We do not know why the body responds so indolently in these cases. Intensive investigation should help us find the answer, so that our follow-up program can be realistically directed and thereby be made more effective.

To sum up, no person should be labeled with the diagnosis of pulmonary tuberculosis on the basis of incomplete evidence. "Suspected tuberculosis" on the x-ray film must be corroborated by a positive

(Continued on page xxiv)

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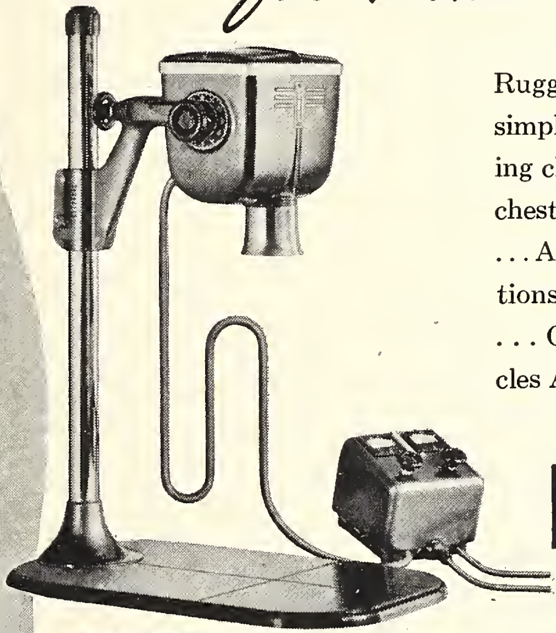

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TUBERCULOSIS ABSTRACTS

(Continued from page 300)

tuberculin test and by positive bacillary findings. Let treatment be delayed and deliberated until all the facts are in and all the evidence is evaluated. If such a practice is followed, physicians will gain in accuracy and skill of diagnosis, and limited hospital resources will be conserved. Most important of all, the person suspected of having tuberculosis will be assured thorough study and scientific diagnosis and will be treated for tuberculosis only if the disease is actually present. Judgments based on positive and complete evidence will give a final verdict that protects the individual and the public health.

—What Is Early Tuberculosis? Herman E. Hilleboe, M.D., Public Health Reports, September 6, 1946.

TREATMENT OF TUBERCULOSIS WITH STREPTOMYCIN

The Hinshaw, Feldman and Pfuetze report in the J.A.M.A., November 30, 1946, is up-to-date on this subject. By all means, read it, if you have not already done so.

A.M.A. HITS ANTIVIVISECTIONISTS' BALLYHOO OVER BILL

"The antivivisectionists are indulging themselves with hysterical manifestations of happiness over a bill recently passed by the New York legislature and signed by Governor Dewey," according to an editorial in the May 24 issue of The Journal of the American Medical Association, which adds: "Actually the bill duplicated existing legislation."

The editorial states in full:

"The antivivisectionists are indulging themselves with hysterical manifestations of happiness over a bill recently passed by the New York legislature and signed by Governor Dewey. The new legislation makes it illegal to steal a licensed dog and offer the animal for sale. The passage of this bill has been hailed all over the country as an antivivisectionist victory. Actually no reasonable person objected to the bill and it was wholly unnecessary anyway. The bill really duplicated existing legislation. Under the general laws of New York State protecting property rights the stealing of dogs was already a felony. There may be occasional criminals that steal people's pets; what they could get out of it by selling such animals to laboratories would hardly pay for the trouble. Any reputable research institution does its utmost to avoid receiving such animals. Perhaps some of the members of antivivisectionist groups are beginning to wonder what is being done with the funds that the executive secretaries continuously solicit. Those interested in protecting research cannot relax their vigilance. The fanatics will try to put over restrictive legislation of real significance on unsuspecting legislators just as soon as they see an opportunity."

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THE COUNTRY DOCTOR

One of the saddest commentaries on the medical profession and one of the greatest problems of the rural areas of the United States is the trend of the country doctor to look toward the city.

A staff writer for the Associated Press, William J. Conway, recently has called attention to the number of advertisements in the Journal of the American Medical association, in which small towns are offering bounties to medical men who would settle there:

A typical ad: Wanted—physician. Town offers salary of $1,800, completely furnished 4-bedroom home and downtown office. Should average $10,000 annually.

The above copy, truly illustrates the desperation with which many communities view the shortage of physicians. One reason for the lack of country doctors is that with the coming of paved roads, the farmer by-passed the medical man in his community for the medical men of the cities, thus the physician was forced to move to town. However, an equally important factor, is that many young medical men do not wish to locate in small towns, and they do not wish to do a general practice.

This is an era of specialization. A small community cannot often support a specialist, although a general practitioner could have a wonderful living. General practice means getting out at night, being called away from meals to prescribe for the croup, or phone in a prescription for constipation. The man who does a general practice is truly doing a great work for humanity. He is about as close to God as a man can be, although his bank account may not ever get into the big figures.

—From News-Times, York, Nebr.

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The Nebraska State Medical Journal

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Vol. 32 Norfolk, Nebraska, August, 1947 No. 8

EDITORIAL

NURSES AND DOCTORS MUST GET ALONG

We note with satisfaction that in his annual address before the House of Delegates of the American Medical Association in Atlantic City, President Harrison Shoulders, urged the formation of a committee to study the nursing problem. In making the recommendation Dr. Shoulders stated:

> THE NURSING CRISIS
>
> Within the past few years a serious crisis has developed in the nursing field. A questionnaire issued by the American Surgical Association indicated that the quantity of nursing talent available was 60 per cent of what it should be, and the quality was estimated as down to 75 per cent. It must be admitted that the nurses have many real grievances today. While special groups in the field of public health, industrial work, teaching and administration are rapidly moving toward more stabilized hours of work, better compensation and programs for social security the status of the private duty nurse and the general floor nurse in the hospital is unsatisfactory. Long hours, irregular employment, lack of any pension or security program and indifference on the part of groups which should be cognizant of the nurses' needs has caused a serious shortage in one of the noblest of the nation's professions. It is high time that physicians study the various ramifications of these issues and exert their influence in support of the objectives which the members of the nursing profession are now striving to attain.
>
> I hope that this House will move that the President name a committee of five, to be known as the Committee on Nursing Problems. This committee would investigate the present objectives of the nursing profession, the standards of education, the time involved for training, the various curriculums, the supply of nurses and quality of services rendered, remuneration, participation in the determination of administrative policies and the question of security benefits. This committee would further act as a liaison with the various nursing organizations and would obtain information of significance to serve as the basis of a report to the House of Delegates at its next meeting. This Association should be able to make a definite contribution in behalf of its close allies—the nurses.

While these remarks apply to all sections of the country, each state, undoubtedly, has its own specific problems. For example, it would be interesting to know the relationships which prevail between the medical societies and the Nurses' Associations of the different states. From what we hear there is room for improvement in this field.

It is now a matter of public record that several bills were prepared and introduced into the last session of our legislature at the request of the Nebraska State Nurses' Association. While most of these bills were of direct concern to hospitals and the medical profession, to our knowledge, neither of these interested parties were consulted or conferred with in the preparation of these proposed laws. This fact, we believe, was responsible for the lack of co-operation of these agencies which resulted in the defeat of the proposed legislation.

The medical profession appeared against only one of these bills. LB 366 was designed to license nurses in Nebraska before the applicant had become a citizen. Being informed as to adverse conditions that developed in other states following such a practice in licensing physicians, our Association felt justified in taking this stand. One of the bills became a law without the Governor's signature, and the other five were killed in the reference committee. The "practical nurse" bill in our estimation deserved a better fate, and undoubtedly, would have fared better had the nurses enlisted the interests of hospitals and doctors in its preparation.

From the point of view of this editorial the contents of those bills are not nearly as important as the fact that they failed to bring about the realization of the purposes of the two groups whose professional aims are identical. This Journal maintains that nursing care and medical care, inseparable as they are, afford a common meeting ground for the nurse and doctor groups. Nursing service and nursing education are closely linked with medical service and medical education. Nurses cannot get along without doctors, and the doctors' task today would be extremely difficult without nurses. On the individual level the nurse and the physician enjoy mutual respect for each other. With a mutual appreciation of our primary interests in conservation of health and care of the sick the Nebraska State Medical Association and Nebraska State Nurses Association can surely find an area of mutual understanding and mutual assistance.

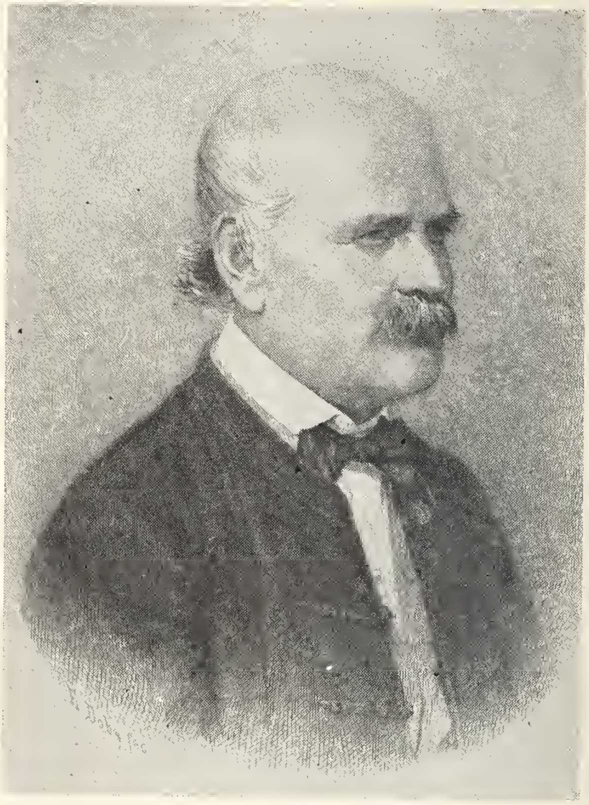
IGNAZ PHILIPP SEMMELWEIS

In the history of midwifery there is a dark page and it is headed SEMMELWEIS—so wrote Fritch of Breslau. No man in the annals of medicine contributed more to the saving of lives and suffered more grievously at the hands of carping contemporaries. Semmelweis revolted against the superstitions and vagaries of a dead past and for his pains he was driven to the mad house.

"He was one of those mortals who was not always happy," wrote Markusorsky, "but he was favored by fate, inasmuch as it was given to him to enrich science with a new idea, and thereby to confer upon humanity an immeasurably important service." So it has been in every age when men have arisen who have evolved a new truth, a new fact that has run counter to traditional beliefs and practices and in so doing they became the targets of controversy and strife, of contempt and scorn. Such was the fate of Semmelweis.

Born in July, 1818 in the village of Offin, a suburb of Budapest, Semmelweis received a meager preliminary education in the village schools and studied medicine in the Universities of Pest and Vienna. Graduating in the University of Vienna in April 1844 he shortly thereafter received the degree of Doctor of Midwifery and was appointed Assistant to the First Lying-in Clinic in the Allgemeines Krankenhaus in Vienna. It was there that he laid the foundation for the work that was to immortalize his name.

Puerperal sepsis was taking a toll of 11.4 per cent of all women delivered in the ward and scarcely a woman went through her travail unscathed. Semmelweis and his students were in the habit of participating in the dissections in the dead house, then returning to the lying-in ward. Kolletschka, the Anatomist, died of septic infection acquired in dissecting. Semmelweis witnessed the autopsy on his body and saw the identical lesions he had so often witnessed in the bodies of women who had died in his ward from puerperal fever. He reasoned that they, too, died from a wound contamination of decomposed animal organic matter. Orders were issued that no students in attendance in the lying-in ward would thereafter be permitted to enter the dead house and before making vaginal examinations they must scrub their hands in a solution of chloride of lime. Within seven months the maternal mortality was lowered from 11.7 per cent to 1.27 per cent.


IGNAZ PHILIPP SEMMELWEIS

The problem was solved to the satisfaction of Semmelweis but it was quite another matter to convince his Chief and the obstetricians the world over. This was the task he set himself to but unhappily it proved his undoing. Petty jealousies, stupidity and willful blindness on the part of his colleagues and the obstetricians of Europe and Great Britain were to hinder his every effort. With few notable exceptions the obstetric profession was committed to theories of their own and would have nothing to do with the new fangled notions of the Hungarian Assistant.

Grieved and resentful of the merciless opposition to his "Doctrine," Semmelweis left the Vienna Clinic and returned to the University of Pest where he resumed his conquest against the ravages of puerperal sepsis that was taking an appalling toll of lives. There he succeeded in reducing the maternal mortality from 30 per cent to 0.85 per cent. As a reward for his achievements he was elevated to the position of Chief of the Lying-in Clinic in the St. Rochus hospital and for a time he was his own master and enjoyed a measure of fame and the reward of a modest income from private practice. But there was no cessation of his controversy with the obstetricians throughout the world. Finally yielding to the advice of his friends he resorted to the printed word in support of his "Doctrine"—he published his "Etiology." It was an epic making contribution to medical literature but it was not well received. His Etiology was followed by "Open Letters to Sundry Professors of Obstetrics" in which he attacked his critics with a vigor and venom that has seldom been witnessed in medical literature. All this served only to fan the flame of calumny and failed utterly in making converts to his "Doctrine." Wrote Waldheim: "The controversy became no longer a scientific encounter, no struggle to attain a knowledge of the truth, but a thoroughly personal, hateful wrangling under the semblance of scientific discussion."

There came a time when the sensitive, impetuous nature of Semmelweis broke under the strain of controversy. Alternate fits of excitability and melancholia took hold of him, his memory failed and his mind became clouded. Finally he became hopelessly insane and was taken to an asylum in Vienna where he died August 15, 1865 at the age of 47. He died of sepsis, the very disease he, himself, had sacrificed his life and happiness to conquer.

The medical profession does well to honor the name of Ignaz Philipp Semmelweis on this the eighty-second anniversary of his passing and the one hundredth anniversary of his "Doctrine."

—Palmer Findley, M.D.

PHYSICAL FITNESS SHOULD BE MEASURED BY EMPLOYABILITY

Physical fitness should be measured by employability rather than by the stringent standards of the wartime armed services, according to Jean Spencer Felton, M.D., of Oak Ridge, Tenn.

Writing in the current issue of Occupational Medicine, Dr. Felton, Superintendent of the Health Department, Monsanto Chemical Co., analyzes 10,834 consecutive preplacement physical examinations conducted during 1944-1945, for placement of workers in 67 different occupations, 56 of which were capable of being filled by women.

On the basis of physical findings, the workers were classified as A, physically qualified for all positions; B, physically fit for restricted work only and C, physically disqualified. The study showed 98.8 per cent (physically fit plus physically impaired) to be employable, and only 1.2 per cent physically unqualified to fill any of the numerous available positions.

Among the men in group B, the predominant diseases diagnosed were of the bones and joints (264), cardiovascular-renal (pertaining to the heart, blood vessels, and kidneys) diseases (242), disease of the eyes (197) and hernia (111). Cardiovascular-renal diseases (80) led the list of diseases experienced by women, followed by endocrine disorders (64), diseases of the eyes (38) and diseases of the bones and joints (33).

Dr. Felton concludes that: "While decrying the physical status of rejected candidates for military service, this same school has failed to demonstrate the most important quality possessed by these men, specifically, their employability. Insufficient emphasis has been laid on the worth of these men as capable workers in the industrial scene, where less stringent physical standards will allow this group to become economically sound through accurate studied job placement. Tight though the labor maket was during the war years, hundreds of thousands of men and women workers streamed to industries, performing heretofore unfamiliar tasks, spending, long hours in the changing environment of plants being converted to wartime production, living in the crowded areas of boom cities, developing new work technics—all this being done by many with definite physical impairments. That industry can and has used the limited worker has been demonstrated repeatedly, for it is realized 'that there is no such thing as a sub-standard worker under a selective placement program'."

Differences among the four racial groups (Negro, Chinese, Filipino and White) were: incidence of allergy and cardiovascular-renal conditions among the yellow applicants was significantly higher than among the white or the Negro applicants; incidence of malformations was significantly higher among the yellow candidates than among the white and incidence of diseases of the bones and joints was significantly higher among the Negro group than among either the white or the brown groups.

Outstanding, however, states the author, is the fact that of the 1,041 Negroes examined, 24.60 per cent gave positive reactions to syphilis tests. The Chinese ran second (17.65 per cent) and 13.64 per cent of the Filipinos showed latent syphilis.

"A significant difference is noted between the white and all other groups, or between the brown and the Negro group in this connection," writes Dr. Felton. "Other than those mentioned, there are no significant differences among the four racial groups."

Differential Diagnosis of Mental Deficiency in Infancy*

ARNOLD L. GESELL
New Haven, Connecticut

Your committee deserves thanks for offering a subject which I think is of such great importance. Indeed, from the standpoint of medical education, it is perhaps one of the most neglected of subjects. Medical students often leave college with a textbook image of mongolism and cretinism. They may have seen on the ward some few seriously defective children and regarded the condition as beyond their medical attention, because it is presumably incurable. In fact, incurability still leaves this whole subject within the realm of medicine.

If we consider that there are few conditions which are more tragic so far as the mothers and fathers and family as a unit are concerned, there are few conditions which cause more anxiety, and which present such permanent continuing problems. We well ask: is not this condition a challenge to medical practice? These problems first come to the attention of the physician and the family physician in particular is looked to for counsel, and he may well be disinclined and baffled too, but he is the one person to whom the family turns and what alternative persons are there to turn to?

The physician, especially the pediatrician or the general practitioner, is the court of first resort. He may, in the first place, have to discover the condition altogether on the basis of his own perception. It is true almost without exception that every case of mental deficiency can be diagnosed in the first year of life. We make the exception only in those somewhat rarer cases where there are secondary causes which operate after a child is a year old, but these are very much in the minority.

We must recall the various causes that bring about the defective development. There may be a primary defect in the germ, simple deficiency. There may be aplasia or malformation, or degenerative disease. There may be secondary defective development due to trauma, hemorrhage, infections, toxic agents, anoxemia, or radiation; and there are types in which the primary and secondary factors are combined.

A word about definition. When shall an infant or a young child be called mentally deficient? Personally, I like the word "ament." It is short and descriptive; but whether we use the term "oligophrenia" or "mental deficiency" or "feeble-mindedness," defective development in this sense dates from birth or early infancy, and is so severe that this particular child as an adult will be unable to conduct his affairs with ordinary prudence and will not be self-dependent.

From a clinical and from a medical-legal standpoint, it seems to me that we ought to restrain the diagnosis of mental deficiency, if there is any chance whatever that this individual when grown up will be able to cope for himself, and will need only a small amount of external supervision. However, if he needs relatively constant supervision as an adult, he may even in infancy be called an ament.

But it is not necessary to label him ever with the medical textbook categories. In imparting the diagnosis, the utmost tact and consideration should be exercised. This again is a challenge to medical finesse and medical skill. We have been talking about severely defective developments. Development may also be deviated so that you do not have frank or fundamental amentia. There may be symptomatic retardations and deformations of various sorts.

Prematurity, for instance, may for some months wear the guise of mental deficiency. Endocrine dysfunctions, selective sensory handicaps—deafness, blindness, are other examples of symptomatic retardations. You are thus confronted with the question: are any of these handicaps making this child dull or is the child essentially dull to begin with? There are also selective motor handicaps which are very important in connection with the cerebral palsies in which there must be a differential diagnosis between motor disability and mental disability. Then there are personality defects, and again mixed types.

It is very erroneous to think that amentia is a homogeneous field, that one is dealing simply with incurable retardation, and that retardation is the sole significant symptom.

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*Delivered before the Omaha Mid-West Clinical Society, October, 1946.

As a matter of fact, amentia is just as diversified in its syndromes and its symptom pictures as are the neuroses and the psychoses and needs just as much interpretive diagnosis.

I'll try to answer some pertinent questions which are handed me. **How early do you believe a baby's intelligence may be estimated with any degree of accuracy, and by what means?** Depending on the severity of the condition, it is often diagnosable at birth, usually by the age of sixteen or twenty weeks, I would say. The diagnosis sometimes can be made on the basis of physical stigmata. You can diagnose even a premature mongol on the basis of physical signs. Cretinism is often diagnosable early after birth on the basis of physical stigmata, but many cases of amentia do not declare themselves at all in physical stigmata. Physical stigmata may be misleading and unreliable. Paradoxically this is true, that on the statistical average, perhaps the cases that look most normal even in institutions prove to be the most defective because so many of them were potentially normal children who suffered blemish before, during or after birth.

That is the reason we find so many normal faces, even attractive countenances among the feeble-minded in association with serious defects. Therefore, the brief answer to the question: how may the diagnosis be made? is through behavior examination, a developmental examination of behavior which uses a standard technique and appraises the severity of the retardation. In doubtful cases periodic consecutive examinations determine whether that retardation is resolving or whether it is as serious and as permanent as it seems.

That is one virtue of developmental diagnosis. You make a spot diagnosis as far as possible, but you have a perfect right if there is a factor of doubt to call for another developmental examination and another one and then match the two or three of them in association to determine the total trend of development. I would say, however, that most cases are diagnosable on one examination if you use a systematic developmental examination and bring clinical experience to bear upon your application of the norms.

2. **What is your explanation of what happens to the infant who seems to develop normally until about the third month and then starts to become listless, has convulsions and deteriorates in general?** This may be a case of cerebral degeneration which left relatively unblemished the basal neuron structures so that the child even seemed to have alert and active eye movements and sufficient activity to simulate normality, but because of the degenerative process or because of a concealed primary defect, the cortical structures do not develop and you see almost a dramatic onset of retardation.

There are not a few cases that do deteriorate in the first years of life, but again I would say that a larger proportion of cases tend to hold their own and improve some with time, with respect to integration of behavior, but still remain, mentally deficient.

I recently had a case of a young infant, somewhat spastic, and a difficult feeding problem. Labor was not complicated or precipitant. When he was about one year old, I see him again and find he is mentally deficient and a paraplegic.

Evidently you are dealing here with a case of cerebral palsy and the feeding difficulty was possibly interpreted in terms of diet and nutrition, and parent-child relationship, and so forth. Remember that even feeding involves behavior. And we have found that feeding behavior difficulties are based on neuro-motor deficiencies or defects or incoordinations and the feeding behavior therefore was an early behavior sign of a condition which was latent throughout.

The paraplegias come to later expression partly because the motor systems are maturing. A diagnosis of the foregoing case might have been made through a formal systematic behavior examination. It is quite possible that this child even at the age of sixteen weeks did not look from a cube to the hand and to the cube from the hand. He probably was functioning down at the twelve and eight weeks level.

3. **How true is the statement, the behavior pattern of the child is fixed at two years?** Well, the truth, I think, is something relative rather than absolute. If you are thinking biologically, you would have to say that in all of us the morphogenetic completeness of our action system—and by that I mean our apparatus, muscular and sensory — has reached a high degree of completeness by the age of two years, the kind of eyes we have, the kind of locomotive abilities we are likely to have, emotional dispositions even,

and susceptibilities and probably some biochemical allergies and so forth.

A great many of these constitutional factors have been established by the age of two years but it seems to me that common sense alone should tell us that this is a biological concept of great importance to medicine, but which must also be qualified by a cultural concept. At the age of two, the child is only beginning to learn to speak, he is just beginning to get sphincter control, he is just beginning to acquire what we call a conscience to conform to the ethics of our civilization.

That is a long process and that takes at least twenty years more because psychosomatically we don't begin to be grown up, and that is always relatively speaking, until the twenties. I would say, however, that in so far as amentia is concerned, it has declared itself by the age of two unless you are dealing with an exceptional, possibly infectional or traumatic condition which produces the amentia.

4. **What is your explanation of the probable cause of mongolism?** I don't think there is any authoritative explanation as yet, in spite of the fact there has recently been a brochure on the subject which incriminates the pituitary gland and calls attention to the close kinship with cretinism. One can never feel but what there is some kinship there and sometimes the two conditions require differential diagnosis.

On the physical side there are some differential factors that could be mentioned. Cretinism has horizontal eye slits. The mongol has them pulled up a little at the corners and slanting outwards. The mongol tends to be flattened in the temporal region and in the occipital region so far as cranium is concerned. The cretin has a more normal cranial conformation. The mongol's skin is smooth, the cretin's skin tends to be rough, redundant and scaly.

I have a feeling that some day somebody is going to hit upon something which will reveal an endocrine factor in mongolism which doesn't mean that it is postnatal but which may have had prenatal, antenatal origin. Meanwhile, we hardly know whether to classify mongolism as a primary condition or a secondary one, and I still lean to the primary classification.

5. **Do severe chronic illness or repeated severe acute illnesses during the first year or two of life have any permanent mental effects?** I think that they may, theoretically speaking. We know probably too little about capillary circulation as yet to rule out the possibility of certain reductions and subtractions which are attributable to infectious illnesses.

I would, however, say that the nervous system is very generously protected by nature from temporary trauma and other difficulties. In cases of starvation, it is one of the last of the organ systems to suffer permanently. It is as if nature would surround this organ system, which is the integrating system of the body, with factors of safety—let's call them insurance factors. These insurance factors are ordinarily not destroyed or over-damaged in the cases of severe illness.

It seems to me that a child with good endowment escapes the harmful results of illnesses and even of cerebral palsy to a greater degree than the child with modest and inferior endowment. We have seen that repeatedly. The well endowed child has stronger insurance factors.

The experimental embryologists have demonstrated such factors in their manipulation of the growing lower organisms. Accordingly the child with a sound, vital inheritance gets by with less damage. This is also true in relation to environmental retardation which should have a word before we close because here is a field that sometimes requires very delicate and careful differential diagnosis. Is the child backward because of environmental handicap?

If a child has been in a hospital even because of chronic illness for months, what effect does it have? Again, much depends upon the temperament and the inborn endowment of the child. Some children make a remarkable escape from the poverty and meagerness of institutional environment. Others do not. They present a picture of reduced behavior which simulates mental deficiency. You can see by periodic visits what happens in this hospital no matter how good the sanitation, no matter if there is a mural of Red Hiding Hood on the wall, and the sun streams through the nursery. An institutionalized child does not get the opportunistic and conscious attention, the adaptive attention which comes from the parent.

He lives in a polygamous environment

with so many different characters and he does not have a chance to organize his growing emotional life about one center, which should be the family center, especially the mother center. The consequence is that even at the age of sixteen weeks you begin to see reductions of behavior. They show a decline in the alertness of the movements of the eyes and accumulating signs of depression as time advances. Even at the age of eight or twelve weeks, behavior may show less integration. At sixteen weeks, the child is not exploiting objects like the cube or the bell as would a normal child.

The facial expression tends to become blander than normal, not due to the hypotonicity of cerebral palsy nor to paralysis of the facial muscles but to reduced function of these muscles because he is so little, in back-and-forth communion with his caretakers. They smile at him, give him a pat on the head and so forth, but they do not create that almost infinite number of interpersonal contacts which come out of the natural conditions of family life.

Even at the age of twenty-eight weeks, when the normal child is banging with a cube and putting the cube in his mouth and pulling it out and looking at it and so forth, these children show reduced initiative. They may not even bang the cube. Some of the more susceptible show stereotypes of behavior like mutual fingering; mutual fingering is pretty good for sixteen weeks. We like it as a positive sign, but when a twenty-eight weeks old infant does this almost all day long as he lies in a supine position, and if on examination you find that his supine behavior patterns are superior to his sitting patterns, then you have another clue that there is environmental retardation.

That happens with institutional children. It is part of the syndrome. They operate better on their backs than when sitting up. When they sit up and see a stranger, their ineptness due to lack of contact, gives them a peculiar kind of shyness. They are awkward. They have an exaggerated resistance to new situations and of course all this time there is retardation in the language sphere because of the impoverished communication.

I see I have only a few moments left and will you permit me to use them to say one word about this question of imparting diagnosis, if you have to make one? It should of course be a correct diagnosis, because the condition causes so much anxiety. It should not be an evasive diagnosis in which you say, "Oh, well, let's be patient, the child will outgrow it." The primary responsibility of the physician in these cases, if he handles them at all, is to help the parents to face reality and to do it steadily, gradually, and as already suggested with the utmost courtesy and consideration.

There is never any reason why an adverse diagnosis should be exploded abruptly in the presence of the anxious family. There is every reason to use some circumlocution, some descriptive phrases which try to picture the condition in terms of what it is, namely a reduction of developmental potentialities. Speaking in relative terms, emphasizing what the child does have, calling attention to the more serious cases in which the given child has more than another child, not diverting the parents from an ultimate recognition of the condition but leading them constructively toward that recognition —that is a service.

It may take sometimes months and years. You may have to, in the early stages, begin with planting only a suspicion and then gradually bring the parents to an adjustment. And all along the line, it is possible to use just ordinary common sense and ingenuity in advising the parents how they can best manage their problem at home with help coming in, with summer vacation aid, with various measures for every particular case, which always have to be. This helps the family to confront the condition, and also helps to preserve the mental hygiene of the parents. Indeed, one might sum up by saying that the diagnosis and supervision of infant amentia is a problem of family welfare.

One out of every 140 Americans is perfect, Dr. Earl D. Bond, University of Pennsylvania professor of psychiatry, estimates.

The one million perfect persons in our midst have no anxiety, no fears, no prejudices, no attractive vices, no weaknesses. They will probably live long.

But you probably won't envy them, even if you are one of the two and one-half million neurotics or one of the 133 million Americans unnecessarily handicapped by too much conscience or struggling with feelings of inferiority. For here is how Dr. Bond described them to life insurance medical officials meeting in Ashville, N. C.

Like the few completely insane people, they are not interesting. They don't seem human. They are all perfect and well rounded, "like a string of zeros."

—Science News Letter, June 21, 1947.

Dermatologic Reactions to Drugs and Antibiotics*

DONALD J. WILSON, M.D., F.A.C.P.

Allergy has been defined as the abnormal reaction of tissues to physical and chemical stimuli. The term is not used in the same sense by all and many clinicians when thinking of "allergy" think of asthma, hay fever and eczema which seem to be separate from other forms of allergy and are designated as atopy. As used in this paper the word "allergy" applies to all types of hypersensitiveness in the human body as far as drugs and antibiotics are concerned.

The major types of allergy are:

1. Anaphylaxis which is confined largely to the lower animals although it does occur in man, is easily produced artificially by a sensitizing dose of an antigen and a subsequent shocking dose of the same antigen. Heredity plays little part in this picture although it is probable that intra-uterine transmission of the antigen or antibody may sensitize the offspring either actively or passively. The antigen is primarily a protein. Desensitization is rather easily accomplished although it is passive in nature.

2. Atopy applies to that group of clinical conditions including asthma, hay fever, atopic dermatitis, urticaria and others. The characteristic allergic response is locallized tissue edema or increased activity of smooth muscle. These reactions within the tissues account for symptoms which vary with the location of the reaction. The atopic phenomenon is characterized by "an immediate whealing reaction on cutaneous or intracutaneous application of an antigen." The antigen is usually a protein or attached to a protein although recent work indicates that antigens may also be of entirely different compositions such as carbohydrates. The antibody regularly found in atopy is the atopic reagin and is easily demonstrated by testing with the antigen, skin sites which have previously been passively sensitized by an intracutaneous injection of the serum from an atopic individual.

The chief characteristic of atopy is its hereditary nature. In addition to the hereditary tendency to become sensitive there is a lesser tendency to acquire sensitivity to certain antigens such as drugs. In atopy, therefore, the sensitivity is, as a rule, naturally acquired.

Desensitization in atopy is difficult to attain, requires many injections over a long period of time and the best results are only moderate. Even this imperfect increased tolerance is often sufficient to protect the individual against the dose of the antigen to which he is naturally exposed. This increased tolerance is often lost quickly.

3. Drug allergy. This type of allergy may in time be proven to belong completely to the atopic group. The antigen is not a protein or a carbohydrate but a chemical or a chemical radical, the skin test is usually negative and the reagins are not demonstrable on passive transfer. Some believe this is due to an incomplete antigen which must be bound with a tissue or serum protein before it is capable of acting as a complete antigen and thus produce a skin reaction. This type of reaction is closely related to atopy by its hereditary tendency, the pathological physiology and by the persistence of the specific hypersensitivity.

4. Bacterial allergy will not be discussed in this paper.

5. Contact allergy. This type of allergy is manifested primarily by reaction in the superficial layers of the skin due to direct contact with the antigen. The basic histologic lesion is spongiosis. There is no hereditary tendency. There may be an hereditary predisposition. Development of the sensitivity results from exposure of the skin to the allergen. Sensitivity is determined by the degree of exposure and the sensitizing tendency of the antigen. The sensitizing property of the various antigens varies from very mild to so powerful that one drop applied to one small area will severely sensitize the entire skin.

The antigen here is not a protein and there are several different types of antigens including lipoids, resins, heavy metals and simple chemicals. There are no circulating antibodies, the patch test is the best method of determining the causative substance and the sensitivity may be lost if future contacts are prevented. Further, this type of reaction can be produced by the ingestion or injection of certain drugs such as bismuth, arsenic, gold, sulfa compounds and atabrine. Simple chemical substances or drugs may not be antigenic in themselves but have the power of combining with proteins or other large molecules. Drugs, therefore, are often referred to as imperfect antigens but after such combinations become perfect antigens.

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*Read before Nebraska Section American College of Physicians in Omaha, March 29, 1947.

There is a distinct tendency for a person who is allergic to one drug to become sensitive to other drugs also, although the reactivity is often very specific. Certain people sensitive to acetysalicylic acid are not sensitive to sodium salicylate. Some individuals have been proven sensitive to levorotary alkaloids while they are not reactive to their dextrorotary isomers.

Feinberg whose classification has been used above, in Chapter 10 of his book "Allergy in Practice" reserves the term "Drug Allergy" for "allergy arising from simple chemical substances mainly taken by mouth." Allergy to complex injectable substances such as liver extract, insulin, serum, etc., he discusses separately. He points out that some of the symptoms often referred to as allergic are not allergic at all but are simply idiosyncrasies in which very small amounts of the drug produce the same effect as much larger doses would be expected to produce in the average person.

True allergy to drugs is usually manifested as asthma, rhinitis, urticaria, abdominal pain, skin eruptions including fixed eruptions and other accepted allergic reactions. "The most accepted concept of the mechanism of drug allergy," according to Feinberg, "deals mainly with the supposition that the simple chemical substance per se is incapable of acting as an antigen but that combining with body substances, particularly proteins, perfect antigens are formed." These in turn, "are capable of producing the allergic manifestation. This concept explains the failure of most drugs to react by skin test and the absence of circulating antibodies."

Sulzberger in discussing the absence of skin reactions to drugs to which patients are known to be sensitive states, "Experimental findings make it seem entirely possible that in many instances we may be applying the wrong substance as a skin test; and that allergen which arrives at the shock tissue after clinical exposure is not the substance itself but some derivative which is elaborated within the body."

Because any particular drug which has been found of value in therapy is immediately incorporated into some formula by the various pharmaceutical manufacturers and compounders, and because new ones are being turned out all of the time, it is impossible for any one individual or group of individuals to prepare and keep up to date, a list of them. An example is the Belote and Whitney's list published in 1937 of compounds containing phenolphthalein. This publication cited by Sulzberger, names 103 preparations, all detailed to the physician and many advertised to the laity, containing this one drug. Of course, nearly all of them contain other drugs also to which the patient may already or may later become sensitive. In addition, instances in which this drug has been used as a coloring in cake frostings, etc., have been reparted by Abramowitz and others.

A sensitizing exposure or contact is a prerequisite to clinical manifestation in all drug allergies just as in other allergies. Although certain drugs or their derivatives can pass freely through the placenta and can cause eruptions in the foetus (cases are recorded of bromide and iodide granulomata in babies at birth), most allergies are acquired by the individual during extra uterine life.

A sensitizing exposure may occur at any time and a history of having taken a drug for years without allergic symptoms is, therefore, not a reliable guide that the individual is now free of sensitivity. Sensitivity is more likely to develop following a massive exposure or following the long continued ingestion of small doses. Not infrequently a drug can be taken for a varying period without difficulty, be discontinued for a time and produce allergic manifestations when its ingestion is resumed.

Further, somatic sensitivity is often induced by the application of certain drugs to the skin. A notable example is the sulfa drugs. Many cases in point have been reported and a resolution condemning the use of sulfa drugs in the local treatment of impetigo, pyoderma, furuncles, etc., was passed by the section of Dermatology of the American Medical Association at its Chicago meeting in 1943. The converse is also true and this applies also to at least some of the antibiotics. Nearly all dermatologists have encountered penicillin contact dermatitis in individuals who have previously received sensitizing doses of penicillin either orally or by injection.

Although some drugs characteristically tend to produce certain types of eruption, there are many reactions which do not follow this pattern. Therefore, the examiner must always be "drug conscious." It is well to consider here, by way of example, some of the various dermatologic manifestations of allergy to the barbiturates and urea derivatives. These may be morbilliform, scarletiniform, urticarial, purpuric and hemorrhagic, multiform, bullous or eczematoid.

It is probable that there is no drug to which someone is not sensitive. Andrews states there are over 200 drugs in common use which have been known to produce dermatologic reactions. He also stresses the diversity of clinical manifestations of drug sensitivity in different individuals and in the same individual. It is desired to state again that an individual who is sensitive to a drug is much more likely to become sensitive to other drugs than one who is not now sensitive.

Time does not permit a description of the eruptions following different drugs and only a few of the more common ones will be enumerated:

Acetanilid — widespread, blotchy, erythematous eruption.

Amidopyrine — frequently erythema multiforme type. Also localized erythematous, urticarial and herpetiform patches or fixed eruptions.

Antipyrine — morbilliforme or scarletiniform or fixed type. May be urticarial, pustular or bullous.

Arsenic—every type from simple erythemas to thick lichenoid patches; from localized exudative to universal exfoliative; from mild pigmentation to discrete and confluent premalignent keratoses. theliomata.

Aspirin—herpetic, erythematous, papular, hemorrhagic, urticarial, fixed and exfoliative. Asthma is common.

Atabrine—every type of reaction just as arsenic with possible exception of chronic keratoses and subsequent epitheliomata.

Barbiturates—urticaria, erythematous, bullous or multiforme, frequently with fever.

Benzocaine, nupercaine, pontocaine, diothane, etc. — acute erythematous, vesicular and exudative patches.

Bromides — acneform follicular lesions, vesicular and bullous eruption, or granulomatous fungating lesions. Nodular erythema nodosum like lesions.

Butesin picrate—acute vesicular and exudative, decidedly edematous lesions, not infrequently with pyrexia.

Cinchophen — angioneurotic edema, urticaria, erythematous, scarletiniform or fixed type.

Gold—erythematous, urticarial or exfoliative, like arsenic and atabrine, melanoderma, alopecia and keratoderma.

Insulin — urticaria, pruritis, morbilliform and sometimes especially with protamine, an extensive lichenoid eruption.

Iodides—acneform, vesicular and bullous, sometimes granulomatous fungating type.

Liver extract—anal and general pruritis, urticaria and eczematoid eruption.

Mapharsen—scarletiniform, erythematous, fixed eruptions or eczematous.

Mercury — erythematous, scarletiniform, fixed eruptions or erythema multiforme type.

Penicillin—scarletiniform, vesicular and urticarial eruptions.

Phenobarbital—scarletiniform, morbilliform, pruritis and bullous often with pyrexia.

Phenolphthalein—bullous, erosive, fixed eruption or multiform.

Pituitary extract—(anterior lobe) injections can produce lipogranulomatosis like insulin, scarletiniform erythemas and anaphylactic shock.

Quinine—often causes general urticaria or scarletiniform eruptions. Multiform eruptions, bullae and fixed eruptions are not uncommon.

Serum—commonly causes urticaria, scarletiniform, erythema, multiform or anaphylactic reactions.

Stilbesterol—has produced purpura, angioneurotic edema and exfoliative dermatitis.

Sulfa drugs—papular, morbilliform or scarletiniform erythemas, angioneurotic edema, vesicular dermatitis, petechiae, severe bullous eruptions, indurated localized erythematous edematous patches, conjunctivitis, hyperpyrexia, exfoliative dermatitis and photosensitization. Generalized reactions often due to local applications on the skin in a sensitized individual.

Sulfur—papulo vesicular, erythematous or squamous pruritic eruptions.

Thiamine chloride—may cause pruritis, urticaria or toxic erythema.

Thiouracil—fever, agranulocytosis, icterus, toxic erythemas, exfoliative dermatitis.

Tyrothricin—localized erythema, vesiculation and pruritis, more reactions from "Tyroderm Ointment" than from a seven carbon chain oil as in "Intraderm Tyrothricin".

Vitamin B Complex—may cause pruritis, urticaria, toxic erythemas and eczematous eruptions.

SUMMARY

1. A brief general outline of allergy as given by Feinberg is reviewed.

2. Explanation of probable mechanism in drug allergy has been briefed.

3. Very wide distribution of drug and antibiotic allergies has been mentioned.

4. Multiform manifestations of reactions due to drugs has been stressed with importance of the examiner becoming "drug conscious."

5. Most common reactions to a few common drugs and antibiotics have been given.

Primary Carcinoma of the Lung

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Primary carcinoma of the lung forms from 5 to 15 per cent of all malignant tumors. What is more important, it is steadily increasing. This increase in the incidence cannot be explained by an improvement in diagnostic methods alone, since necropsy records in all countries show an increase. Overholt(1) calls attention to the growing problem of cancer of the lung which too often masquerades as some other pulmonary condition and is therefore not promptly recognized. He states: "Cancer of the lung is now one of the most important diseases of the chest in patients between 40 and 65, particularly in males." It occurs nearly 5 times as often in the male as in the female and is second only to neoplasm of the stomach as a cause of cancer death in men. It is thus increasingly apparent that cancer of the lung is becoming almost as frequent as tuberculosis of the lung.

Etiology: To explain the etiology of lung cancer many theories have been suggested, particularly in connection with the observation that the incidence is increasing. The relationship of chronic inflammatory changes following influenza or the inhalation of certain dusts and gases has been suggested. None of these factors have been proved to have definite etiology in lung cancer. The only carcinoma of the lung which can be correlated clinically with a known cause is the Schneeberg lung cancer developing in miners in certain regions of Saxony. A combination of arsenic and radium emanation in the dust of the mines and the local mechanical irritation of inhaled sharp dust particles seem to be etiological factors in this type of lung cancer.

Location: Carcinoma of the lung may originate at three points: the bronchial epithelium, the bronchial mucous gland and the alveolar epithelium. There are various gradations of these epithelial tumors. As may be expected the undifferentiated forms of squamous cell carcinoma and adenocarcinomas show more widespread metastases. From the point of view of location, one may separate the hilar form, which represents about three-fourth of the carcinoma of the lung, from the rarer peripheral group. The most frequent type arises from the bronchi; 75 per cent of bronchiogenic carcinomas originate in the primary or secondary stem bronchi and are thus within bronchoscopic reach. In Moersch's(2) series of 448 proven bronchiogenic tumors the diagnosis was made from tissue obtained through the bronchoscope in 92 per cent of all cases upon which bronchoscopy was performed.

Signs and Symptoms: One of the greatest obstacles to early diagosis of carcinoma of the lung is the absence of a characteristic train of symptoms. The symptoms are those associated with pulmonary inflammatory disease in general. All too frequently the patient is allowed to go unduly long before a thorough examination, and by then his state is often hopeless. Symptoms caused by bronchiogenic carcinoma depend largely on the situation of the tumor and the degree of bronchial obstruction it produces. Cough is by far the earliest, most frequent symtom; at the onset it is usually dry and nonproductive. Since a large percentage of the normal population suffer from so-called cigarette cough, the first warning of serious disease is often so misinterpreted. It is therefore imperative, especially in a patient more than 40 years of age, to consider seriously the possibility of carcinoma if an unexplained and persistent cough develops.

As the tumor increases in size and fills the lumen of the bronchus it interferes with normal drainage of the bronchi distal to the lesion. The retained secretion furnishes an excellent culture medium for invading organisms and, depending on the character of the organisms, bronchitis, bronchiectasis or abscess may develop. The cough may now become productive and the sputum purulent.

Further increase in size of the tumor, edema of the bronchial mucosa or plugging of a reduced bronchial lumen by thick, tenacious secretion may dam back the secretion, giving rise to chills and fever. Usually after an interval of 3 to 5 days the bronchial obstruction is relieved by evacuation of the retained secretion, and the chills and fever subside. Very frequently such an episode is mistaken for an attack of pneumonia and the patient so treated. Significantly, many case histories show a diagnosis of pneumonia at some time or other in the course of the patient's illness, thus illustrating the importance of a careful antecedent history in every case of suspected pneumonia. Many victims give a history of expectoration of blood, varying from streaking of the sputum to very copious or even fatal bleeding. Because the bleeding is usually associated with cough the underlying condition can easily be mistaken for pulmonary tuberculosis, and at times the differential diagnosis can be extremely difficult.

As the pulmonary carcinoma increases in size it decreases the caliber of the bronchial lumen, and atelectasis may develop. As a consequence of this development, dyspnea may occur. When the dyspnea is sudden in appearance and especially when it is associated with a wheeze it may occasionally be incorrectly regarded as due to asthma.

Pain is noted as a presenting symptom in many cases. This varies from a sense of discomfort to severe, sharp pain requiring morphine for relief. The appearance of a sharp pain in bronchiogenic carcinoma is especially significant, for it usually indicates that the carcinoma has spread to the pleura, thoracic cage or mediastinum and neighboring nerves. Pain is usually the first sign of tumors arising in the apex of the lung, the so-called superior sulcus tumor or Pancoast tumor. Hoarseness is a relatively infrequent and late manifestation, but has considerable prognostic significance, as it usually means the carcinoma has spread to the mediastinum and has involved the recurrent larynegeal nerve.

Although loss of weight occurs frequently it has no direct relation to the operability of the carcinoma. The same is true of clubbing of the fingers.

Moersch⁽²⁾ reports the average duration of symptoms as eight and one-half months from onset until the diagnosis was made in a group of 148 cases at the Mayo Clinic. There were three important reasons for this delay in diagnosis: (1) the lack of specific symptoms; (2) failure to suspect the presence of carcinoma; (3) difficulty in establishing positive diagnosis even when the condition was suspected.

Clinical points: The physical examination may reveal nothing of a typical nature. Usually the clinician observes those signs associated with complete or partial atelectasis of the lung of any type. On the affected side of the chest there may be a respiratory lag, best observed by standing at the foot of the bed with the patient stripped from chin to umbilicus. Mediastinal shift toward the diseased side is most easily noted by finding evidence of a tracheal displacement. A wheeze may be detected by auscultation and is caused by the air rushing past the occluding lesion. Coarse rales simply indicate the degree of secondary infection present. Careful search should be made for metastatic nodes, especially in the supraclavicular region.

X-ray findings: Although x-ray alone may not make the diagnosis of primary lung cancer the findings usually suggest it in suspected cases. The radiologic features suggestive of pulmonary carcinoma are the shadow of a central (fig. 1) or a peripheral (fig. 3) tumor mass, atelectasis of part (fig. 2) or all (fig. 4) of a lung, emphysema or mediastinal shift (fig. 4), usually causing a shift toward the side of the lesion and abnormal behavior of the diaphragm. Late cases may show signs of mediastinal or pleural infiltration. Careful fluoroscopic study is helpful, as well as good lateral or oblique views.

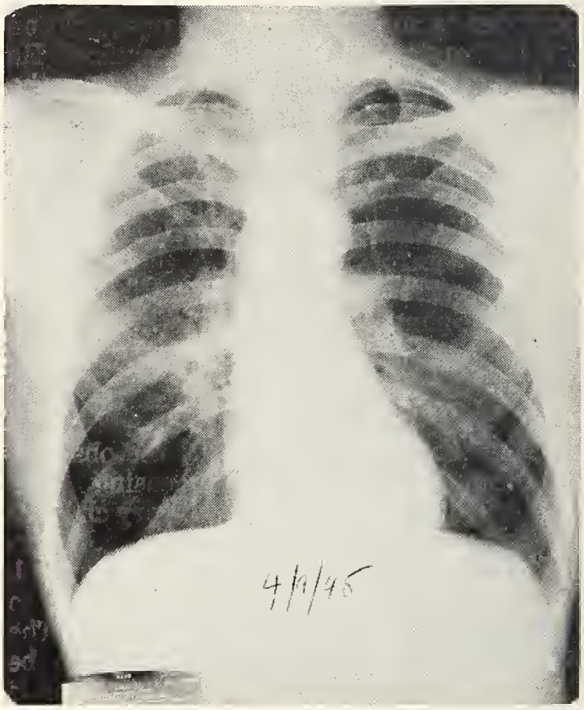

Fig. 1. A small primary bronchiogenic tumor of the right upper main stem bronchus. Note the suggestive appearance of a pulmonary Tuberculosis. Bronchoscopy and biopsy made the diagnosis.

Differential diagnosis: When a primary lung tumor is suspected the clinician must rule out unresolved pneumonia, tuberculosis, mycotic disease, bronchiectasis, retained foreign bodies and metastatic carcinoma. In addition to a complete history, thorough physical examination and the usual laboratory studies, useful adjuncts are anterior-posterior, oblique and lateral films with or without the use of the Bucky diaphragm; bronchograms after the injection of lipiodol; sputum examination and pleural fluid study for malignant cells; and, most important of all, bronchosopy.

Diagnosis: As pointed out, 75 to 90 per cent of bronchiogenic carcinomas should be within bronchoscopic reach. Practically the entire limits of the lower and middle bronchi are accessible, and likewise the left upper can frequently be brought well into view. The short upper lobe bronchus in its distal 2½ centimeters is usually not seen by the bronchoscopist. Topical application of 5 cc. of freshly made 20 per cent cocaine or some related substance gives excellent anesthesia to the pharynx, larynx and trachea. The scope is introduced with the patient in the supine position and the head resting in the hands of an assistant. The direct view laryngoscope may aid in locating the vocal cords. As soon as the instrument is passed beyond the cords further anesthesia may be obtained by spraying 5 per cent freshly made cocaine solution over the bronchial tree through the long tube nebulizer. Usually the tumor is easily identified as a sessile or polypoid growth impinging upon the lumen of the bronchus. Biopsy for microscopic study may be made with any of the endoscopy forceps. Malignant tumors of the bronchus are usually fairly soft and friable and come away easily with the forceps; suspicious areas which do not separate easily are usually not of malignant nature.

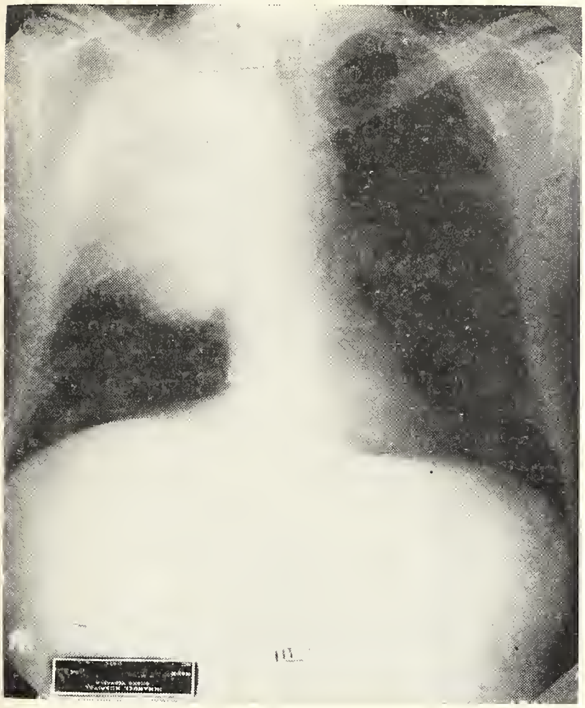

Fig. 2. Atelectasis of the right upper lobe from a bronchiogenic carcinoma of the main stem bronchus. This is the most characteristic x-ray finding.

Treatment: Adams(3) of Boston, reviewing lung tumors at the Lahey Clinic in the last thirteen years, points out that the hospital mortality on patients who underwent surgery for carcinoma of the lung previous to 1921 was over 25 per cent, while the average since 1941 has been 3.5 per cent and is still dropping. Churchill(4) cites several series of cases each numbering more than 25 patients without a single death. Blades and Dugan(5) report a mortality below 5 per cent for resection of the lung within recent years. Therapeutically, bronchoscopy is of little value in carcinoma of the lung. Attempts have been made to remove accessible lesions by electrocoagulation as well as by the implantation of radon seeds through the bronchoscope. Neither method has met with any degree of success. This does not apply to the adenocarcinoma grade 1, or so-called adenoma, which is probably not a metastasizing tumor.

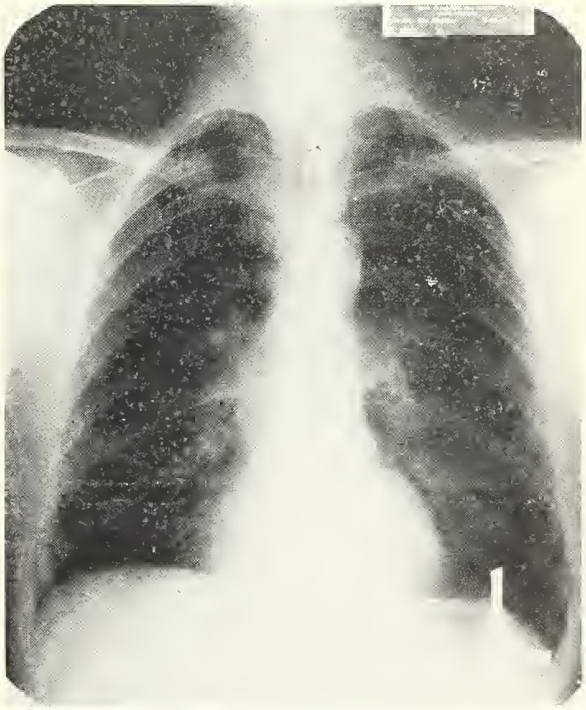

Fig. 3. A normal appearing chest but bronchoscopic study revealed carcinoma in the trachea and in every main stem bronchus.

Roentgen therapy for bronchiogenic carcinoma has a valuable place in the treatment of four groups of patients: first, those who give definite evidence of extension of the lesion beyond the limits of operability; second, those of fairly advanced age whose vitality cannot be restored sufficiently to withstand major surgery; third, those found to be inoperable at the time of surgical exploration; and last, those who refuse surgery. As Leddy and Moersch(6) pointed out, 20 per cent of a group of 125 patients lived more than one year after x-ray treatment, while not one of similar group who received no therapy survived one year. One patient of the treated group lived nine years after roentgen therapy.

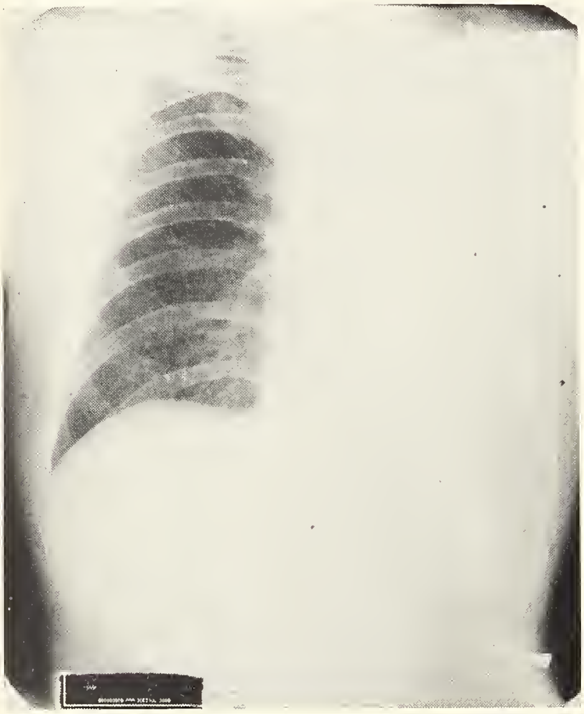

Fig. 4. Complete atelectasis of the left lung. Bronchoscopic examination proved a primary carcinoma of the left main stem bronchus.

Preoperative preparation: Preoperatively the bronchoscope may be extremely useful when joined with such medical means as penicillin parenterally and by nebulization, sulfonamides by mouth and postural drainage used as a means of relieving bronchial occlusion and retained infected secretions. This preoperative clearing of the secretions is probably one of the big factors in lowering operative mortality in chest surgery. If allowed to remain this infected material may be pushed over into the good lung during the operation and cause the patient to virtually drown in his own secretions or perhaps to develop a massive pulmonary collapse early in the postoperative period.

Anesthesia: Improvements in anesthesia must receive due credit for lowering the mortality of chest surgery. Most physician anesthetists now insist upon use of an intratracheal tube in order to assure frequent aspiration of the bronchial tree during the procedure and to regulate the depth of the anesthetic easily at any time. The intratracheal tube is attached directly to the anethesia machine and its rebreathing bag. In this circuit is placed a gauge which indicates in millimeters of mercury the intrapulmonary pressure. During most of the procedure this gauge ranges between 1 and 3 mm. On occasion it may be advisable to bring the pressure within the circuit up to 10 or 12 mm., to clear atelectasis or check the circulation of air within the operated lung.

Surgical approach: The patient is usually placed on his side with the affected lung up. A posterolateral approach is made, resecting the 7th or 8th rib in one half to two thirds of its extent. Care is taken to preserve the periosteum of the rib in order that it may later regenerate. Some suitable rib retractor such as that designed by Tudor-Edwards affords ample exposure. Pneumonectomy is the procedure of choice. The large vessels are usually ligated and the bronchus dissected free from the hilus previous to its division and closure. Closure of the bronchus may be conveniently done with number zero braided silk suture. When possible it is best to cover the stump of the bronchus with pleura. Irrigation of the pleural cavity may be done with saline solution or 1 to 10,000 solution of Zepharin. Closure of the chest wall is made with interrupted catgut suture throughout. A catheter may be left to drain the cavity, connecting it to a water seal or to 20 mm. of water suction.

Postoperative care: Postoperatively the bronchoscope is almost indispensable. The patient's remaining lung tissue should be completely cleared of all mucous and purulent secretions before he recovers from the anesthetic agent. Harrington(7) would insist that this be done before the patient leaves the operating room, and an x-ray film be made by portable apparatus and read while still wet. If the film shows evidence of any remaining atelectasis the patient should be scoped again. Bronchoscopy should likewise clear out any atelectasis occuring in later hours or days.

CONCLUSION

In conclusion, we should like to stress again the greatly lowered hospital mortality following exploratory thoracotomy. As this figure is being reduced to 2 or 3 per cent, certainly few patients should be denied the chance of cure by surgical means when they suffer from a primary lung tumor. Too, we should like to emphasize the beneficial effects of palliative x-ray therapy. A good number of such patients can be kept alive and relatively comfortable for months and even years with properly balanced Roentgen therapy.

SUMMARY

Observations concerning present day methods of the diagnosis and treatment of primary lung tumors have been made. The low operative mortality after surgical intervention in recent years has been emphasized. Attention has been called to palliative treatment by Roentgen therapy, which may add months or years to the patient's life and comfort.

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HOSPITAL BLOOD BANKS MAY TRANSMIT JAUNDICE TO PATIENTS

Emphasizing the danger of transmitting serum jaundice through hospital blood banks, three Boston physicians suggest preventive measures in the July 5 issue of The Journal of the American Medical Association.

The physicians—Herbert Scheinberg, Thomas D. Kinney and Charles A. Janeway from the Departments of Medicine and Pathology of the Peter Bent Brigham Hospital and the Harvard Medical School, and the Departments of Pediatrics of the Children's Hospital and the Harvard Medical School—observed 11 cases of hepatitis (inflammation of the liver) in the course of a year in which 2,443 transfusions of blood and plasma were given.

Jaundice occurs when a bile-pigment or coloring matter called bilirubin, manufactured in the liver, gets into the blood and causes a yellowish discoloration of the skin, tissue linings and fluids of the body.

Serum jaundice is a form of acute liver inflammation occurring after an interval of 40 to 180 days following transfusion of whole blood, serum or plasma. Three blood donors, subsequently investigated in this series, were found to have had jaundice at some previous period or to have been exposed to someone who had.

The authors explain the operation of a blood bank and its dangers. First, a brief history is taken from each donor, which is designed to exclude those with malaria, syphilis or an acute illness. Approximately 500 cc. of blood are then drawn and used as whole blood, if needed, at any time during the ensuing five to seven days. At the conclusion of this period the red cells are discarded and the plasma (the fluid portion of the blood) from 10 to 15 bottles is combined to make a pool. Each pool is numbered and a record made of the donors whose plasma it contains. The pool is then frozen and stored in the frozen state until needed.

Of the 11 patients who developed jaundice after transfusion from this pool, four died, a mortality of 36 per cent.

"The basis for condemning the practice of pooling plasma is the fact that the amount of infective serum necessary to produce the disease is incredibly small," state the physicians.

They suggest that the following preventive measures be put into effect immediately: greater efforts should be made to detect the infectious donors; the practice of pooling plasma should be curtailed, and lots of plasma should be given to as few recipients as possible.

Blood, in their opinion, should not be taken from any person who has (1) ever had jaundice or hepatitis; (2) had contact with a person with jaundice in the past year; (3) received human blood or its derivatives or (4) been a hospital patient in the past year.

In the future, the doctors suggest the use of whole blood and plasma fractionation products in preference to pooled plasma. Plasma fractionation is more potent than plasma because it is derived by separating plasma proteins into components responsible for a particular function. Thus the concentrate can be used appropriately in the treatment of specific conditions.

Laboratory Aids in the Diagnosis and Prevention of Severe Blood Transfusion Reactions*

DR. MAURICE LEV,
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Blood transfusion reactions are of importance to the clinician and the pathologist. Our experiences during the war have increased our knowledge of the nature of such reactions. It is therefore apropos to attempt to apply our war experiences to civilian practice.

It is not my purpose to deal with the mild reactions, which occur with varying frequency(1). Such reactions take the form of slight urticaria or a mild febrile response. Nor is it my purpose to discuss homologous serum jaundice, which may appear one to several months after the transfusion(2-6). The purpose of this communication is to clarify the nature of severe reactions. By a severe reaction I mean a chill, accompanied by a temperature of 103° or higher, with or without such manifestations, as pain in the lumbar region, neck, or chest, precordial oppression, shock and collapse. A clarification of these reactions is necessary in view of the prevalent opinion among clinicians that all severe reactions are hemolytic.

Severe transfusion reactions may be classified as (1) hemolytic, (2) allergic, (3) pyrogenic, (4) cardiac, (5) air embolic, and (6) idiopathic.

The **hemolytic reaction** is due to hemolysis of red blood cells, either the donor's or the patient's, generally the former. Most often there has been an overlooked incompatibility of blood(1) or a group 0 universal donor of high titer was used (7, 8, 9). This reaction may take on various forms, from no symptoms at all(10) to anaphylactic shock(1). As a rule the attack begins with a sense of great discomfort and anxiety, with or without pain in the lumbar region, the chest or the back of the neck, and the patient goes into shock. This is followed by a severe chill and fever, which in time is followed by hemoglobinuria and oliguria or anuria. There now ensues a period of symptomatic improvement accompanied by anuria. The patient then enters a state of uremia with death or recovery.

The **allergic reaction** is apparently due to a hypersensitivity of the patient to the donor's blood(11, 12, 13). Its severe form is characterized by anaphylactic shock which is usually rapidly fatal.

The **pyrogenic reaction** is due to technical faults in the blood collecting or delivering apparatus or procedure. Its severe manifestation is typified by a severe chill and fever of more than 103°.

The **cardiac reaction**(14) (15) is due to overloading the circulation with fluid. It is typified by pulmonary edema due to left ventricular failure.

The air **embolic reaction**(16) is due to the entrance of air into the vein from the "giving" set, producing a pulmonary embolus, with its picture of acute cor pulmonale.

In the **idiopathic** group are included a great many severe reactions which at present are poorly understood.

All severe reactions may mimic each other clinically. Laboratory aids must therefore be employed to establish a diagnosis. These laboratory methods concern themselves with immediate simpler tests, and subsequent more exacting serologic methods, useful when immediate methods have been overlooked.

LABORATORY PROCEDURE FOR ROUTINE DIAGNOSIS OF SEVERE TRANSFUSION REACTIONS

The following laboratory procedure is recommended for the routine diagnosis of severe transfusion reactions. When a patient has had a severe transfusion reaction all urine specimens are sent to the laboratory marked "Attention pathologist—transfusion reaction." The laboratory then examines the urine specifically for albumin, bile, urobilinogen, gross and occult blood, red cells, pigmented casts and pigmented debris. At the same time 10 c.c. of blood is carefully drawn with a dry syringe and needle and 5 c.c. is placed into each of two tubes(10), one dry and the other containing 1 c.c. of 3.8% sodium citrate. The citrated specimen is centrifuged immediately and the supernatant fluid inspected for hemoglobin. After the blood in the other tube is clotted· it is also centrifuged and inspected for hemoglobin as a check. In addition icterus index and Van den Bergh tests are performed. Two hours after the reaction blood is again drawn for hemoglobin inspection, icterus index and Van den Bergh tests. At 8, 16, 24 and 48 hours the icterus index and Van den Bergh tests are repeated. If the icterus index is increased, subsequent daily determinations are performed. It is advisable that the pathologist be informed immediately that a reaction has occurred. The unused blood should be left at the bedside for further study by the pathologist.

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In the typical hemolytic reaction hemoglobin is found in the serum within two hours after the reaction. The first or second urine specimen contains gross or occult blood, with a varying number of red blood cells and usually some pigmented casts. In the later urine specimens urobilinogen is increased but there is no bile. At a varying time after the transfusion up to within 48 hours, the icterus index is lightly to moderately elevated (up to about 20 units), and the Van den Bergh gives a positive direct or biphasic reaction. Later this reaction changes to a negative direct and positive indirect(17).

In the pyrogenic reactions, no hemoglobin discoloration is noted in the serum after two hours nor is there hemoglobin or red cells in the first several urine specimens. (This of course assumes that the urine has been negative for these elements before the reaction). There is no bile in the urine. The icterus index does not become elevated within the 48 hour period.

In the anaphylactic, air embolic and cardiac reactions, the laboratory findings are similar to the pyrogenic reaction, ruling out a hemolytic reaction. Only the autopsy however can differentiate these conditions from each other.

The idiopathic group of reactions present a great unsolved problem to the laboratory diagnostician. I have been impressed by several patients who following a transfusion had a severe chill, fever, with or without shock followed by jaundice within 24-48 hours. There was no hemoglobin discoloration of the serum after the transfusion. Red cells were present in the urine with an increase in urobilinogen, with or without bile. The icterus index was considerably elevated (usually more than 20), with a strongly positive direct and indirect Van den Bergh reaction. The icterus index continued to increase after 48 hours with the same type of Van den Bergh reaction. The picture was interpreted as one of hepatitis. These patients recovered and so the diagnosis, of necessity, remains presumptive. Recently in a patient who came to autopsy 18 hours following a transfusion reaction, a severe hepatitis with liver necrosis was noted. There had been no evidence of hemoglobin discoloration of the serum after the transfusion, no blood in the urine, and there was no evidence of hemoglobinuric nephrosis at autopsy.

Tentatively, these reactions may be termed hepatotoxic. The laboratory findings in this type are: (1) no hemoglobin discoloration of the serum, (2) red cells may or may not be present in the urine, and (3) the icterus index becomes progressively more elevated with a markedly positive direct and a positive indirect Van den Bergh reaction persisting for a period longer than 48 hours.

If these simple laboratory tests were not used early enough to indicate the nature of the reaction, the differential agglutination technique of Wiener(8, 10, 18) may be of aid. If a universal donor was used then the technique is carried out with Groups A and B typing area. If an intra-group donor was used, then differentiation may be made with M and N typing sera.

Any type of these severe reactions, with the exception of the pyrogenic reaction, may result in death. The autopsy findings vary according to the nature of the reaction. In an anaphylactic reaction the findings are nonspecific, being those of shock. In a hemolytic reaction, hemoglobinuric nephrosis (lower nephron nephrosis)(19) is the usual picture. In the one hepatotoxic reaction that I have seen at autopsy, a severe hepatitis with liver recrosis was found.

LABORATORY PROCEDURE FOR REQUESTING AND DISPENSING BLOOD FOR TRANSFUSION

In recent years we have learned that idiopathic reactions to the transfusion of blood occur with considerable frequency in certain diseases. These are: (1) hemolytic anemias (20-24), (2) pernicious(23,25,26,27) and aplastic anemias(27), (3) kidney disease(25 28), and (4) in patients with an allergic history (11, 12, 13). Furthermore, we now know that certain conditions without transfusion reactions may be associated with lower nephron nephrosis. These are, ischemic muscle necrosis(19) as in crush injuries, vehicle accidents, and septic abortion(29), hemolysis as in burns, black water fever and poisons, and suffonamide intoxication. It is possible that a mild reaction to a transfusion here may take on added severity.

The following procedure is therefore recommended as a means of avoiding reactions, and as an aid in diagnosis when they occur. The procedure implies the closest liasion between the laboratory and the clinical services of a hospital.

The transfusion request slip should contain the following information in addition to name, chart no., etc. (1) Is there a history of jaundice, kidney disease or allergy? (2) Does the pre-transfusion urine show albumin, red cells, or occult blood, or increased amount of urobilinogen? (3) Is the icterus index elevated? (4) Has there been a previous transfusion, and if so has there been any reaction, and (5) What is the diagnosis?

According to the information offered, the laboratory dispenses freshly drawn or stored blood of various age. If the patient is manifesting signs of kidney disease or icterus as noted from the pre-transfusion laboratory data, it is recommended that no blood be given. But if the clinician still desires to give a transfusion, then only fresh blood is given. If there is a history of kidney or liver disease, then only fresh blood is given. If there has been a reaction to previous transfusions then again only fresh blood is administered. If the patient has a history of allergy, stored blood up to 3 days of age may be administered. If the patient has been in an accident, or is going through an abortion, the question of ischemic muscle nerosis(19) is evaluated, and the urinary output is checked before blood is administered. Of course in cases of emergency a stock of group O blood is held on hand and may be administered by the clinician at his discretion without cross-matching.

Before the administration of blood the patient is routinely alkalinized by any standard procedure.

Blood is administered cold (unheated). Overheated blood has produced a fatal hemolytic reaction(30). The first 50 c.c. are administered slowly, the time of administration requiring 15 minutes. During this time the patient is watched for reactions, and if they occur, the blood is stopped immediately. After 15 minutes, the blood is given at any speed with ordinary care and watchfulness. If the patient has had previous reactions to transfusion it may be advisable to use Wiener's new biologic test(31).

SUMMARY

1. Severe transfusion reactions are discussed as to their types, and their differential diagnosis.

2. A proposed procedure for the administration of blood transfusions is offered, based on close liaison between the laboratory and clinical services.

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PNEUMONIA IMMUNIZATION CUTS DEATH RATE OF OLDER PERSONS

A group of New York investigators, who made a six year study of pneumonia in elderly patients, suggest immunization against the disease where high incidence rates prevail, as in epidemics, in institutions and in persons with a tendency to recurring pneumonia.

Writing in the current issue of the Archives of Internal Medicine, published by the American Medical Association, the investigators—Paul Kaufman, M. D., Attending Physician, Goldwater Memorial Hospital and New York City Home, C. O'Brien, M. D., Resident Physician and H. Stein, M.D., Resident Physician, New York City Home—state that they undertook their study in the older age group for several reasons:

First, they have a high incidence of pneumonia, mortality and case fatality rate. Second, repeated attacks of pneumonia occur frequently. Third, there was possibility for continuous observation, hospitalization and reexamination, since the patients were from the New York City Home and the Medical Division of the former Central and Neurological Hospital and the Goldwater Memorial Hospital, where higher age groups are treated.

During the six year study, 1937-43, 5,750 patients were immunized against pneumonia while 5,153 control patients were observed for comparison. Among the immunized group 99 developed pneumonia, an incidence rate of 17.2 per 1,000, of which 40 died, a mortality rate of 6.2 per 1,000. There were 227 cases of pneumonia among the non immunized patients, an incidence rate of 44 per 1,000 with 98 deaths, a mortality rate of 19 per 1,000.

The antigen used in these experiments for immunization is made from a fraction of the pneumococcus, the organism responsible for pneumonia. The antigen, which incites production by the body cells of a substance to fight the bacteria, is a polysaccharide.

ANNUAL LOSS FROM BRUCELLOSIS STAGGERING

The annual food loss in milk, butter, beef, veal and pork from brucellosis reaches a staggering total in calories of the kind most needed by an underfed world, according to an editorial in the July 5 issue of The Journal of the American Medical Association.

Brucellosis, commonly known as undulant fever or Malta fever, is one of the most prevalent today and a source of potential danger to the national health. Goats, cows and hogs harbor the infection and man contracts it by drinking raw milk or handling infectious material.

The editorial estimates that "the total number of cases reported. in the United States has averaged about 4,000 yearly for the past several years. Only the relatively severe acute illnesses are diagnosed and reported. Chronic infections outnumber the acute illness by a ratio of at least 10 to one but these chronic infections are rarely diagnosed. If 4,000 cases are reported yearly it is probable that from 40,000 to 100,000 infections occur yearly."

Citing investigations made for the state of Michigan, the editorial points out that the average infected cow was found to produce 2,065 pounds less milk per lactation period than the non-infected cow. Estimating that 10 per cent of 1,080,000 cows in the state of Michigan were infected, the 108,000 infected cows resulted in a total milk loss of 222,904,000 pounds of market milk yearly—enough to supply about 557,000 persons for one year.

The editorial concludes that "development of still better methods in diagnosis, treatment and prevention, in animals and man, depends upon an increasing 'brucellosis-mindedness' and continued investigation. The disease continues to be a major public health problem. Pasteurization of all dairy products must remain the greatest bulwark against human infection until methods of control can be perfected."

Proceedings of the Staff Conference Nebraska Methodist Hospital

Hyperparathyroidism Due to Adenoma of the Parathyroid Gland.

(Report of Two Cases)

JOHN R. SCHENKEN, M.D., Editor
Omaha, Nebraska

CASE 1

DR. E. L. MACQUIDDY (Clinical history and discussion): The patient was a 50-year-old white housewife who entered Methodist Hospital February 12, 1946 with the following complaints (1) weight loss of 32 pounds in the last eight years; (2) joint pains in the ankles, knees and hips upon arising for the last eight years; (3) swelling of the left hip causing a limp for the past two to three years; and (4) exhaustion and extreme fatigue for the past two to three years.

She had the usual diseases of childhood. In 1926 she had a "strep throat" with a heart lesion followed by thyrotoxicosis which was treated with Lugol's solution. In 1938 when she entered the hospital for childbirth her physical examination indicated that she was "well nourished and well developed." It is to be noted, however, that some of her present complaints date back to the year that her child was born. In 1945, x-rays revealed a generalized demineralization, a blood calcium level of 19.0 and a phosphorus level of 3.1 (Normal calcium 9.0 to 11.0 mg. per cent; normal phosphorus level, 3.0 to 4.0 mg. per cent.)

The father died of a "stroke" and one brother died of heart disease.

Physical examination showed a very thin and undernourished woman whose muscle tone and skin turgor were extremely poor. She was 5 feet, 3 inches tall and her weight was only 98 pounds. Eye, ear, nose and throat examination was essentially negative except for slight deafness and a slight prominence of the eyeballs. She had a 10° scoliosis of the spine with prominence of the left ilium. Her right leg was shorter than her left. Otherwise the extremities were essentially negative.

Serology was negative. The basal metabolism rate was zero. The hemoglobin was 78 per cent; red blood cells 3,820,000; white blood cells 10,700 with a differential of: segmenters 74, staffs 6, lymphocytes 20. The urine was cloudy and acid with 1.008 concentration; negative for albumin and sugar, and contained 10 to 15 white blood cells in clumps and a few epithelial cells. At the time of her admission the blood calcium level was 15.6 mg. per cent and the blood phosphorus level was 2.5 mg. per cent. On the 14th the calcium level was 18.5 and phosphorus level 2.0 and on the 19th, 7 days after admission, the calcium was 14.6 and phosphorus 3.3. Treatment consisted of Hytacherol, a synthetic parathyroid hormone (2 drops in a glass of water with morning and evening meals), and 0.5 mgm. of stilbesterol every other day. She was discharged on Feb. 19th and readmitted on March 10, 1946.

On readmission there was no essential change in her physical condition as the disease itself seemed to be essentially the same. She was given calcium gluconate, gr. 15, with meals. On the following day, her calcium level was 16.2 mg. per cent and her phosphorus level 2.8 mg. per cent. On March 13th, after the usual preoperative preparation, a parathyroidectomy was performed and she was given 1,000 cc. of 5 per cent glucose in NaCl, morphine and aspirin as needed. Two days following operation, she first began complaining of numbness in the toes and finger tips. It was noticed by the nurse that her head was shaking and that the skin of her back was quite sensitive. That evening her right leg became stiff and her right arm was numb. She was again given Hytacherol (3 drops in water twice a day) and calcium gluconate, gr. 15, orally pro re nata during the day and an ampule of calcium gluconate at night. This same day the calcium had dropped to 11.6 and the phosphorus to 2.1 mg. From that time forward she continued to have these pains and cramps in her legs and arms. Occasionally she developed stiffness in her face and hands with numbness in the hands. Calcium gluconate, gr. 15, was continued orally and intravenously, for the cramping. On the 18th the blood calcium was 7.6 and phosphorus 3.75.

TABLE 1. Serum Calcium, Serum Phosphorus and Alkaline Phosphatase (Case 1)

	2-12-46	2-14-46	2-19-46*	3-11-46	3-13-46†	3-15-46
Serum Calcium	15.60	18.50	14.60	16.20	----	11.60
Serum Phosphorous	2.50	2.80	3.30	2.80	----	2.10

*Patient discharged 2-19-46; readmitted 3-10-46.
†Operation 3-13-46.

	3-18-46	3-20-46	3-22-46	3-26-46	4-3-46	4-8-46
Serum Calcium	7.60	4.78	5.80	12.20	8.40	9.30
Serum Phosphorus	3.75	4.60	2.30	3.70	4.30	4.80

TABLE 2. Blood Counts (Case 1)

	3-11-46	3-28-46	4-4-46
Hemoglobin (Gm.)	11.50	8.70	10.50
Red Blood Cells (in million)	4.38	2.72	3.60
White Blood Cells	7,400	7,920	10,200
Differential:			
Segmented	58	74	64
Stabs	2	6	4
Lymphocytes	34	20	30
Eosinophiles	6	--	2

On the 19th and 20th she had what were considered her worst days. On the 20th the blood calcium had dropped to 4.78 mg. per cent and the phosphorus level was 4.6. She continued to have arm and leg pains and considerable twitching. She was placed on a high calcium diet and the Hytacherol was increased first to 5 drops t.i.d. and then to 6 drops t.i.d. She was also given some lextron and her calcium gluconate intravenously t.i.d. for a while and then cut to once a day. From the 20th on, (Table 1), the calcium and phosphorus levels steadily began to re-approach normal. On the 22nd her calcium level had risen to 5.8 mg. per cent and the phosphorus had dropped to 2.3 mg. per cent. On the 26th the calcium level had climbed up to 12.2 and the phosphorus level to 3.7 mg. per cent. At that time the Hytacherol was reduced to 4 drops t.i.d. and the calcium gluconate to gr. IX.

On the 2nd of April she suddenly developed a great deal of throbbing pain in her right hand, wrist and arm. This grew steadily worse in the evening and finally the intravenous calcium gluconate was discontinued. Dr. Shrock saw the patient the following morning and x-rays of the arm and wrist were made. The Hytacherol was again increased to 6 drops t.i.d. From that time until her discharge on the 15th she continued to complain of this throbbing pain in her wrist which varied somewhat from day to day but seemed to be constantly present. On the 6th we stopped the calcium gluconate and replaced it with lextron and dicaldimin (2 capsules at mealtime).

On the 28th of March she began to improve considerably and by the 1st of April the twitching and cramping pains did not bother her although she still complained of the pain in her wrist.

In going back over the history we found that blood calcium determination which had been done two years previously at another hospital were 16.0 and 18.0, showing that for a period of two years, at least, this woman had been suffering from a hypercalcemia. We all know that following the removal of these tumors the patient changes rapidly from the "hyper" type to the "hypo" type which is what occurred in this case.

My experience with Hytacherol is very limited. We used it in this case since the patient had a very definite high calcium in the blood stream and generally demineralized bones and we hoped that Hytacherol would cause the diffusion of calcium from the blood to the bone. However, after three days' administration of Hytacherol the blood calcium level jumped from 15.6 to 18.5 so it was discontinued. Following operation the usual picture of hypoparathyroidism developed.

TABLE 3. Serum Calcium, Serum Phosphorus and Alkaline Phosphatase (Case 2)

	1-4-46	1-12-46	1-23-46	1-25-46*	1-26-46	1-28-46	1-31-46	2-4-46	2-5-46
Serum Calcium	15.85	17.85	17.24	14.51	11.15	8.10	6.96	5.85	5.65
Serum Phosphorus	2.55	2.56	2.80	2.60	2.12	5.30	1.62	1.80	------
Alkaline Phosphatase	12.6 u	6.96u	9.50u	------	------	2.50u	7.90u	6.20u	------

	2-6-46	2-7-46	2-8-46	2-9-46	2-11-46	2-12-46	2-13-46	2-14-46	2-15-46
Serum Calcium	5.57	5.51	5.44	5.12	5.15	5.12	4.68	5.54	5.13
Serum Phosphorus	1.50	------	------	1.40	------	1.70	------	------	2.10
Alkaline Phosphatase	11.00u	------	------	7.50u	------	6.30u	------	------	11.00u

	2-16-46	2-19-46	2-21-46	2-25-46	2-28-46	3-1-46	3-4-46	3-7-46	3-12-46
Serum Calcium	5.66	6.12	8.32	8.70	8.60	8.00	9.75	------	8.71
Serum Phosphorus	------	3.50	3.00	------	2.40	2.98	------	2.98	------
Alkaline Phosphatase	------	8.30u	------	------	6.90u	5.73u	------	5.73u	------

TABLE 4. Blood Counts (Case 2)

	1-4-46	2-4-46 (Transfusion)	2-6-46 (Transfusion)	2-9-46	2-15-46 (Transfusion)	3-2-46
Hemoglobin (Gm.)	9.1	5.8	7.3	7.7	8.2	9.3
Red Blood Cells (in million)	3.75	2.62	3.17	3.49	3.56	3.78
White Blood Cells	5,600	4,400	6,500	5,900	5,600	5,000
Differential:						
Segmented	43	13	28	56	58	46
Stabs	10	63	36	11	9	19
Young Cells	--	--	1	--	--	--
Myelocytes	--	--	1	--	--	--
Eosinophiles	2	1	7	--	3	5
Lymphocytes	41	10	24	30	26	23
Basophiles	--	--	1	--	--	--
Monocytes	4	8	2	3	4	7

In these cases there is a drop in the red blood cell count. That was the reason for the administration of the iron. Another interesting thing is that while this woman had a rather stormy convalescence and on several occasions appeared to be developing tetany, at no time did she develop true tetany. The pain in the right wrist is difficult to explain. I am sure it was embolic in origin. There was swelling and local heat, but it is gradually subsiding although it is not normal at this time. The last blood calcium we took was 10.2 and the phosphorus was slightly above normal. Her convalescence is satisfactory but as you know it will be a lengthy one.

In some cataract cases and in cases with post-menstrual disturbances, there is a very definite hypocalcemia although not as severe as in the post operative parathyroid adenomas. Dr. Best and I feel that this woman had a much more uneventful convalescence than did the patient at the University to whom Hytacherol was not given.

CASE 2

DR. MACQUIDDY (Clinical History): This was a 42-year-old white woman who first entered the University Hospital on the 3rd of January, 1946. Her complaints were (1) spontaneous fracture of the right forearm three weeks previous to entrance while lifting a pan of hot water; (2) inability to walk without crutches for six months because of weakness in her legs and tendency to fall even when using crutches; (3) generalized weakness and tiredness; (4) marked loss of weight for one year; (5) intermittent urgency, frequency, nocturia, and low back pain for three years; and (6) excessive thirst for several years.

She had an alveolectomy in 1941 because her jaw bone was wasting away. She had an abdominal abscess with multiple fistulae, an operative drainage and an apparent cure in 1921. In 1942 she was in Methodist Hospital because of acute peptic ulcer with severe hemorrhage. She said that she had had no recurrence of this condition since then.

Her family history was essentially negative.

Physical examination showed fair development and fair nutrition. Otherwise her physical state was essentially negative with the exception of several incisional scars and the appearance of the extremities. She had a medial bowing of the right forearm and motion was markedly limited at the elbow, wrist and hand. A hard mass was present on the ulnar side of the right forearm about 5 cm. below the elbow and she only had partial lateral rotation of the forearm. Reflexes were slightly hyperactive.

She was admitted as an orthopedic problem and transferred to surgery in the latter part of January. On the day following operation (Parathyroidectomy) she began complaining of tingling of the fingers and end of tongue and numbness of the extremities. A few days later there was peripheral paresthesia and occasional muscular twitchings. The following day she complained that there was no feeling from the waist down. Five days after operation it was noted that her thumbs were opposed to her hands and she complained of feeling weak, lethargic and "tight all over." About seven days following operation she developed pneumonia in the left posterior portion of the chest and nine days after operation she had spells of crying, depression, twitching of hands and general body tremor. This condition continued despite the use of calcium gluconate intravenously to help control these spasma of twitching. The calcium gluconate relieved her apprehension somewhat but it did not improve her condition at that time. It was not until a month or so after operation that she began to feel stronger and was finally allowed up. Table 3 will show that the calcium phosphorus levels in her case, as in the previous case, started with a high calcium, 15.85 and 2.55 mg. per cent phosphorus and went up to 17.85 calcium prior to operation. Following the operation the calcium level dropped to 14.51 and phosphorus to 2.60. With the use of the parathyroid extract prepared at the University and intravenous injection of calcium gluconate, her condition gradually improved until finally, on discharge, her calcium level was 8.71 and phosphorus 2.98.

This patient, too, had a rather severe anemia while she was in the hospital. Previous to operation her red blood cell count was 3,760,000 with 9.1 gm. hemoglobin and following operation this had dropped to 5.8 gm. hemoglobin with 2,620,000 red blood cells.

DR. RUSSELL BEST: I think the surgeon's first problem is to find out whether the tumor can be palpated before operation. If it can, then it is a rather simple procedure to locate the tumor and remove it. In case No. 2, the tumor was very definitely visible and palpable and it was easily removed. In case No. 1, we thought that there was a tumor in the right lower pole but were not quite as sure as we were in the second case. I think the medical man should stand pretty close by when the surgeon is operating on one of these cases because at the time there is difficulty in locating the tumor. These tumors may not be on the posterior aspect of the thyroid gland. They may be found substernally, in the posterior mediastinum or between the trachea and esophagus as happened in this case. Now, if you have searched for such a tumor and have not found it, what are you going to do? Are you dealing with a case in which you have simple hyperparathyroidism, i.e., are all the glands (four, five or six) over-functioning; or do you have a tumor mass which you cannot find? In many of the published case histories those who have had the unfortunate experience of not finding the tumor at first operation have excised one or more of the normal parathyroid glands. One feels that he should do it, if he has not found the tumor, believing that possibly the gland is over-functioning. It is like trying to cut down the hyperglycemia by cutting off the tail of the pancreas when there is a small islet adenoma at the head of the pancreas which cannot be felt. Personally, I believe that under the circumstances I would simply back out and say "I'll try you another day." For, if some of the normal parathyroid is removed and an operation is performed later and a parathyroid tumor found in a rather odd position the postoperative reaction is worse than it would be if you had not done the first excision.

The second problem for the surgeon is the question of the postoperative management. Hytacherol should not be used except as a last resort, because if a man has a broken leg and the leg is mended you don't give him a crutch to exercise it. The parathyroid patient is now out of the rather desparate situation and you should make the parathyroid glands function by not giving them any assistance just as you do in the case of the broken leg. I blamed the low calcium on the fact that in case No. 2 the patient was given too much parathyroid hormone. Now, I know I was wrong because in comparing these two cases I can see the difference in the comfort of the two patients and realize that it should be given serious consideration. This patient (Table 3) was in a desperate situation on January 23. We thought she had pneumonia and nephritis; she was dehydrated, she vomited, and had diarrhea; I thought she would not survive. But in Case 1 (Table 1) we did have an approach with very unusual symptoms. You notice how the curve did not drop quite so low. Either the phosphorus is trying to come up or the calcium is down low after the operation and is trying to come up. After seeing these two very dramatic comparisons I certainly will advise the use of Hytacherol in all cases because I believe the patient will have a smoother convalescence.

DR. HOWARD B. HUNT (Osseous Changes in Hyperparathyroidism): The undiagnosed patient may be referred to the radiologist with one or more of various complaints and the condition of hyperparathyroidism may be first suggested by the radiological findings. The symptoms which prompt the x-ray examination may be referrable to the bony skeleton, urinary tract, gastrointestinal tract or to more systemic symptoms.

Pain in the lower back or extremities and occasionally a pathological fracture or unexplained kyphus may prompt an x-ray examination of the bony skeleton. The most characteristic changes are the generalized demineralization of the entire bony skeleton with widening of Haversian canals, fuzziness of trabeculae and a diffuse translucent granularity of bony texture. Coalescing areas of fibrous replacement of bone and disintegration give the appearance of cystic rarefraction. The skull may be thickened and usually shows a combined granular and porous translucence. The demineralized and softened vertebral bodies shorten and the resistant intervertebral discs intrude into their ends.

The disorders of bone which may be confused with hyperparathyroidism in x-ray examination are renal rickets, the osteomalacias of steatorrhea, senility or idiopathic osteomalacia, Paget's disease, and fibrous dysplasia of bone. Hyperparathyroidism causes generalized demineralization throughout the bony skeleton, whereas fibrous dysplasia is a local or regional fibrocystic disorder of development with other bones appearing perfectly normal. Paget's disease is likewise a more or less regional fibrous osteitis with thickening of bones, disorientation of trabeculae and some scattered osteoblastic patches. Osteomalacias in general cause a diffuse even demineralization with thinning of trabeculae, but no irregularity or granularity of texture. So called "renal rickets" is sometimes referred to as renal hyperparathyroidism on the basis that retention of phosphorous by the diseased kidneys stimulates the hyperplasia of the parathyroids with elimination of calcium and demineralization of the bones. The bony changes are generally identical with those of primary hyperparathyroidism, except that in children the epiphyseal cartilaginous zones are elongated and subject to minor luxations. Skeletal changes of hyperparathyroidism, particularly in children, call for a careful check on renal function, bearing in mind the possibilities of polycystic kidneys and old pyelonephritis as well as glomerulonephritis.

The patient with primary hyperparathyroidism may develop renal impairment from calcareous deposition in the renal pyramids which is readily discernible by x-ray. Urinary calculi are common in hyperparathyroidism, and ureteral colic may be the symptom which sends the patient to the radiologist. Biliary calculi are occasionally seen. Calcification in soft tissues may simulate scleroderma.

Unexplained anemia, weakness, general debility and vague abdominal symptoms may prompt an x-ray examination of the gastrointestinal tract. The observance of characteristic skeletal changes or calcareous deposits in the kidneys may then be the observation which first suggests hyperparathyroidism as the probable diagnosis in such cases.

DR. JOHN R. SCHENKEN: The tumor removed from the patient (Case I) consisted of a mass of tissue weighing 13.0 Gm. and measuring about 4.5 cm. through its greatest diameter. This constituted about 110 times more parathyroid tissue than a normal patient should have. Combined weights of all of the parathyroid glands of normal individuals is about 120 mmg. About two-thirds of the mass showed a well formed capsule. The remainder was somewhat irregular. On section the tissue was found to be soft, very friable, yellowish brown in color and rather homogeneous. In some areas there were cysts which measured less than 1 mm. in diameter. In the center of the tumor there was a yellowish gray, firm, glistening, elastic mass which contained a central area of calcification. Microscopic examination revealed a type cell, classified according to Castleman and Mallory as of a glandular cystic variety.

There are two types of hyperparathyroidism: primary and secondary. Among the primary types, the cases from the literature as well as those seen at Massachusetts General Hospital were analyzed as to the lesions which were produced. These showed that the classical bone lesions of generalized cyst formation were present in 28 per cent, generalized decalcification of the skeleton was present in two per cent of the cases, generalized decalcification with renal stones was present in 15 per cent and renal stones alone were present in 55 per cent of the 140 cases. Sixty-seven of the cases were observed over a period of ten years at Massachusetts General Hospital.

When these cases were subdivided into groups comprising those diagnosed outside and sent to the hospital and those diagnosed by the hospital staff, an interesting difference was discovered. It was found that only 19 per cent of those diagnosed by the staff showed the classical bone lesions as compared with 65 per cent diagnosed on the outside. It was also noted that 73 per cent diagnosed by the hospital staff showed renal stones alone, whereas only 22 per cent diagnosed outside showed renal stones with no other evidence of the hyperparathyroidism. This serves to emphasize the fact that if you depend on skeletal lesions for the diagnosis of hyperparathyroidism you will miss the majority of the cases in the early phases of the disease.

I would like to re-emphasize a point made by Dr. Best and one which both of these patients illustrate: that when there is a neoplasm present which is responsible for the hyperparathyroidism, the removal of this neoplasm throws the patient into a state of hypoparathyroidism because of the atrophy of disuse of the uninvolved parathyroid glands. In a recent conference with Dr. Tracy Mallory on this subject, he stated that it usually required several months after the adenoma was removed for the patient to become stabilized without the aid of parathormone or dihydrotachysterol.

It is of interest to note that in twelve of the 140 cases that were reviewed by the Boston group, the tumors were multiple. They also noted that in 10 to 15 per cent of renal calculi cases, hyperparathyroidism was the causative factor.

Secondary hyperparathyroidism is the hyperplasia which occurs as a result of the existence of some other disease in the body, usually chronic nephritis.

How can we make the diagnosis from the laboratory standpoint? Dr. MacQuiddy called my attention to an office procedure described by Sulkowitch in which a quantitative test is made to determine the presence of calcium is the urine. If calcium is present the patient probably has a hypercalcemia and should be sent to a laboratory for a blood calcium determination. In questionable cases a total protein calcium determination should always be made because the elevation of the calcium in hyperparathyroidism is due to ionized calcium and not to the calcium which is joined with protein, the so-called calcium protein A.

Therefore, in some of these cases one may find a normal calcium and still have hyperparathyroidism. If there is a low protein associated with a normal calcium, there is a high ionized calcium and a hyperparathyroidism as a general rule.

There are two theories concerning the action of parathormone: (1) that it operates through the kidney, and (2) that it operates directly on the skeleton. Evidence to support one or the other of these theories is as follows:

The injection of parathormone in parathyroid extract in patients with chronic nephritis fails to produce a phosphate diuresis which normal people have. These same investigators correlated the degree of nephritis indirectly with the degree of phosphate excretion.

Experiments have been performed in which dogs and rats have been subjected to a bilateral nephrectomy. When these animals were injected with parathyroid extract there was no rise in calcium. Some authors have also observed that nephrectomy protects the animals against the skeletal changes resulting from the injection of this hormone. If animals are administered disodium phosphate continuously they maintain a normal serum calcium and phosphorus following the injection of parathormone. All of these experiments are based on the belief that parathormone acts through the kidney by decreasing phosphate resorbtion of the tubules and that as a result large quantities of phosphates are excreted. The hypercalcemia and demineralization of the skeleton occurs as the result of this phosphate excretion. No one seems to know exactly how this mechanism operates.

The evidence against the idea that the mechanism of parathyroid extract action is not primarily through the kidney consists of: some investigators have found that the urinary excretion of phosphates is normal in dogs whether or not they are in a state of hypo- or hyperparathyroidism. Other experiments have shown that if bilateral nephrectomy is performed in animals there is a rise in blood calcium following injection of parathormone. Still other investigators have shown that in chronic nephritis we sometimes do get an increase in calcium but that it is latent—i.e., it occurs 24 hours after the injection of the parathyroid extract. Another group of investigators showed that there was no rise in serum calcium following the injection of parathyroid extract to nephrectomized animals but that bone changes typical of hyperparathyroidism could be reproduced. This seems to be the most conclusive evidence that the entire action of parathormone is not dependent upon phosphate excretion.

I think we must therefore conclude that, although it is proven that the injection of parathyroid extract increases phosphate excretion and therefore is able to alter the calcium level of the blood, it probably also has a direct action upon the skeletal system.

In secondary hyperparathyroidism due to renal disease, the patient starts out with a high phosphate blood level and since the phosphate cannot be excreted by the kidney it is excreted into the bowel in sufficient quantity to affect the dietary calcium. So we have a deficient calcium diet which produces an overactivity of the parathyroid; in other words a secondary hyperparathyroidism.

DR. JOHN GEDGOUD (Discussion): The one thing that hasn't been mentioned tonight is the alkaline phosphatase. In all of the conditions which we have been discussing tonight it is definitely increased. Just in passing, I might mention that at the present time we have a 2½-year-old child at the University who also has a generalized demineralization of bone with multiple fractures. She has a normal calcium, a normal phosphorus and a low phosphatase.

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* * *

Mv friend Victor is one of the "If" boys. Victor could do some serious reading, or take a course in accounting, or write a "wow" of a book—if he only had the time. Or (his latest version) if he could only take a couple of months off.

There's just one thing wrong with Victor's story. It's not lack of time that hampers him, but lack of drive.

Like many neurotic persons, especially those who live largely in the realm of phantasy where accomplishment is effortless and limited only by the fertility of imagination, Victor has an almost pathologic fear of expending any more actual energy than is absolutely necessary to existence. Why read a book, when the movie version will be out next week? Why learn to play the piano, when a twist of the wrist will tune in Toscanini?

A great many people are like Victor. They'd move mountains—if it didn't require effort. And, of course, if they only had the time.

If you only had the time! What an overworked excuse that is!

Let's look at the record. How did you balance your time budget today? True, you spent eighteen or nineteen hours in sleeping, eating and working. But what about the other five? Did you do one thing to improve your mind? Did you add something to your knowledge of your work? Did you create something? A year from now will you be better equipped because of something you did today?

No? Then why not begin to make your leisure pay dividends? Why not invest one hour of your daily five in the future?

Don't wait for the millennium when you can take "a couple of months off." It never comes. But one hour invested day by day adds up to three hundred and sixty-five hours at the end of a year. That's the equivalent of forty-five eight-hour working days . . . or a six weeks' vacation — with dividends.

And it's yours for the taking!

—James Sonnett Greene, M.D.
from TALK.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

THE OMAHA MID-WEST CLINICAL SOCIETY FIFTEENTH ANNUAL ASSEMBLY

October 27, 28, 29, 30, 31, 1947

Hotel Paxton — Omaha

DISTINGUISHED GUESTS

NELSON WAITE BARKER, M.D., Rochester, Minnesota (Internal Medicine); Associate Professor of Medicine, Mayo Foundation University of Minnesota; Associate in Medicine, Mayo Clinic; Consultant, Division of Medicine, Mayo Clinic.

EDWARD LEROY BORTZ, M.D., Philadelphia, Pennsylvania (Internal Medicine); President, American Medical Association; Associate Professor of Medicine, University of Pennsylvania Graduate School of Medicine; Chief, Medical Service B, Lankenau Hospital.

PAUL ROBERTS CANNON, M.D., Chicago, Illinois (Pathology); Professor and Chairman of Department of Pathology, University of Chicago; School of Medicine and Division of Biologic Sciences; Consultant Pathologist, Illinois Central and Oak Forest Hospitals; Member of National Academy of Sciences; Food and Nutrition Board, National Research Council; Council on Pharmacy and Chemistry, American Medical Association.

FRANCIS BAYARD CARTER, M.D., Durham, North Carolina (Obstetrics; Gynecology); Professor of Obstetrics and Gynecology, Duke University School of Medicine; Obstetrician and Gynecologist in Chief, Duke University Hospital.

WARREN HENRY COLE, M.D., Chicago, Illinois (Surgery); Professor of Surgery and Head of Department, University of Illinois College of Medicine.

FRANKLIN GESSFORD EBAUGH, M.D., Denver, Colorado (Psychiatry); Professor of Psychiatry, University of Colorado School of Medicine; Director, Colorado Psychopathic Hospital; Director, Division of Psychiatric Education, National Committee for Mental Hygiene; Consultant in Mental Hygiene, U.S.P.H.S. and Surgeon General's Office, U.S. Army; Consultant Neurologist, Childrens and Denver General Hospitals; Consultant Neuropsychiatrist, National Jewish Hospital.

WILLIAM THOMAS GREEN, M.D., Boston, Massachusetts (Orthopedic Surgery); Clinical Professor of Orthopedic Surgery, Harvard Medical School; Director, Massachusetts Infantile Paralysis Clinics; Orthopedic Surgeon in Chief, Childrens and Peter Bent Brigham Hospitals.

ROY BIGGS HENLINE, M. D., New York, New York (Urology); Director of Urology, Sydenham Hospital; Consultant in Urology, Yonkers General Hospital, Mount Vernon Hospital and St. Lukes Hospital, Newburgh.

WALTER LINCOLN PALMER, M.D., Chicago, Illinois (Internal Medicine); Professor of Medicine, University of Chicago School of Medicine; Staff, Albert Merritt Billings Hospital.

WILLIAM FRANCIS REINHOFF, JR., M.D.,

Baltimore, Maryland (Surgery); Associate Professor of Surgery and Instructor in Surgical Anatomy, Johns Hopkins University School of Medicine; Associate Surgeon, Johns Hopkins University School of Medicine.

T. E. SANDERS, M.D., St. Louis, Missouri (Ophthalmology); Assistant Professor of Ophthalmology and Ophthalmic Pathology, Washington University School of Medicine; Ophthalmologist, Washington University Clinics, St. Louis City Infirmary and Missouri School for the Blind.

CHARLES AUGUSTUS WEYMULLER, M. D., Brooklyn, New York (Pediatrics); Professor and Head of Department of Pediatrics, Long Island College of Medicine; Director of Pediatrics and Chief Attending Pediatrician, Long Island College Hospital and Polhemus Memorial Clinic.

Symposiums on Convulsive Disorders, Immunization, Low Back Pain, Obstetric Problems, New Therapeutic Agents, and Thyroid Disease will be presented by members of the Society on Tuesday and Wednesday. Individual lectures are scheduled for Thursday.

The Friday morning program has not as yet been completed, but a symposium on a subject which will be of special interest to all practicing physicians is being planned. The personnel of the symposium will be made up of distinguished guests in addition to those listed above. Every physician registering for this assembly should plan his schedule now so that he can participate in this program. The subject is one which demands the attention and consideration of each individual physician, for it has far-reaching effects on his own future as well as that of the practice of medicine.

Remember the dates—October 27, 28, 29, 30, 31, 1947.

The International College of Surgeons, United States Chapter, will hold its Twelfth Annual Assembly and Convocation in Chicago, September 28 to October 4, 1947.

The program will include operative and non-operative clinics, demonstrations, symposia, forums, medical motion pictures, exhibits and the formal dedication of the new library and permanent home of the United States Chapter. All meetings, with the exception of the operative clinics, will be held in the Palmer House and the Stevens Hotel.

The Cook County Hospital of Chicago has reserved Friday, October 3 for operative clinics, round table discussions and demonstrations for the attending Fellows of the College. Twenty other hospitals of Chicago will be hosts at surgical clinics and demonstrations on October 4.

General Chairman of the meeting is Raymond W. Nealy, M.D., Chicago; and Co-chairmen are Karl Meyer, M.D., and Max Thorek, M.D., of Chicago.

Louis J. Gariepy, M.D. of Detroit, Secretary of the U. S. Chapter announced that the annual meeting of the House of Delegates and election of officers would be held on September 28 and 29 immediately preceeding the Assembly and Convocation. Presiding will be President Herbert Acuff, M.D. of Knoxville, Tennessee.

Copy of the program and detailed information may be obtained by writing Max Thorek, M.D., Co-chairman, 1516 Lake Shore Drive, Chicago, Illinois.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-fifth annual scientific and clinical session Sept 2, 3, 4, 5 and 6 inclusive, at the Hotel Radisson, Minneapolis. Scientific and clinical sessions will be given the days of Sept. 3, 4, 5 and 6. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition to the scientific sessions, the annual instruction courses will be held Sept. 2, 3, 4 and 5. These courses will be open to physicians and the therapists registered with the American Registry of Physical Therapy Technicians. For information concerning the convention and the instruction course, address the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

INSTRUCTIONAL COURSE IN ALLERGY

The American College of Allergists has announced that its annual Fall Graduate Instructional Course in Allergy will be given in Cincinnati, Ohio, November 3-8, inclusive, under the auspices of the Medical College of the University of Cincinnati.

The program this year is the best ever offered by the College. Forty-six formal lectures are listed and also a special allergy clinic of case presentations. An added feature this year will be three informal discussion groups led by various members of the faculty.

The faculty is composed of more than forty outstanding physicians and scientists from prominent medical centers and colleges in the United States and Canada. The course presents a comprehensive study of the entire field of allergy—covering the fundamentals, special allergies, specific diseases, and all modern methods of treatment. Symposiums on dermatologic and pediatric allergy are also included, as well as a survey of the laboratory approach to the subject including preparation and standardization of extracts and skin testing.

The course is recommended to all those especially interested in allergy, and to the general practitioner and specialist who anticipates treating his own allergic patients. It is designed to provide a more comprehensive understanding of the many manifestations of allergy so commonly encountered by the doctor, and to emphasize methods of diagnosis and treatment so that the physician is prepared to offer the greatest aid to his patient.

Programs and complete information can be obtained by writing to the College Secretary, Dr. Fred W. Wittich, 423 La Salle Medical Building, Minneapolis 2, Minnesota.

MEDICAL PUBLICATIONS NEEDED OVERSEAS

As a result of war and persecution, doctors, dentists and technicians in allied fields throughout Europe have been deprived for more than ten years of news of the latest developments in their professions—the kind of news and analysis contained in this journal.

When you have finished this issue, put it to work by sending it to the SOS (Supplies for Overseas Survivors) Collection of the Joint Distribution Committee, 1 West 39 Street, New York 18, N. Y. It will be placed in a library in a D.P. camp, child care center, hospital or school, for use by professionals desperately anxious to bring themselves up-to-date on the knowledge forcibly kept from them by the Nazis.

NEWS and VIEWS

Donald G. Anderson, M. D., former dean of the Boston University School of Medicine, has taken up his new duties as Secretary of the Council on Medical Education and Hospitals of the American Medical Association. He succeeds Victor Johnson, M. D., who recently was appointed director of the Mayo Foundation for Medical Education, at Rochester, Minn.

Dr. Anderson is a graduate of Harvard College and received his M. D. degree from Columbia. He has had hospital and academic appointments at Boston City Hospital, Presbyterian Hospital in New York, Evans Memorial and Massachusetts Memorial Hospitals in Boston, and Columbia. During the war he was associated with Dr. Chester Keefer in penicillin research for the Office of Scientific Research and Development. His research publications deal primarily with the employment of the sulfa drugs, penicillin and streptomycin in the chemotherapy of infections.

Dr. G. A. Clowes, Ph.D., Sc.D., LL.D., Director Emeritus of the Lilly Research Laboratories, was honored by the American Diabetes Association at its recent annual meeting in Atlantic City, New Jersey. He delivered the annual Banting Memorial address and was awarded the Banting Medal which is given in recognition of distinguished service in the field of diabetes.

Under Dr. Clowes' direction, the Lilly Research Laboratories cooperated with the University of Toronto and Drs. Banting and Best in the early development of insulin of sufficient purity and stability to permit its widespread clinical use throughout the world.

HIGHLIGHTS OF THE A.M.A. JUNE SESSIONS

The new officers of the American Medical Association, elected at Atlantic City, for 1947-48 are:

Dr. Roscoe L. Sensenich, South Bend, Indiana, President-Elect.

Dr. Thomas A. McGoldrick, Brooklyn, N. Y., Vice-President.

Dr. George F. Lull, Chicago, re-elected Secretary and General Manager.

Dr. Josiah J. Moore, Chicago, re-elected Treasurer.

Dr. R. W. Fouts, Omaha, Nebraska, re-elected Speaker of the House.

Dr. Francis F. Borzell, Philadelphia, Vice-Speaker of the House.

Dr. Dwight H. Murray, Napa, Calif., re-elected to a five year term Board of Trustees.

Dr. Edward J. McCormick, Toledo, Ohio, elected to serve a five year term, Board of Trustees.

Dr. Lloyd Noland, Fairfield, Ala., re-elected as a member of the Judicial Council.

Dr. John H. Musser, New Orleans, re-elected as a member of the Council on Medical Education and Hospitals.

Dr. William Middleton, Madison, Wis., elected member of the Council on Medical Education and Hospitals.

Drs. Stanley P. Reimann, Philadelphia, and L. B. Jackson, San Antonio, elected to the Council on Scientific Assembly.

Dr. James R. McVay, Kansas City, Mo., re-elected a member of the Council on Medical Service, and

Drs. Elmer Hess, Erie, Pa., and Jesse D. Hamer, Phoenix, Ariz., elected to the same council.

The House of Delegates selected Chicago as the 1948 convention city; Atlantic City for the session in 1949 and San Francisco in 1950.

Important among the resolutions adopted by the House of Delegates was the one discharging the Committee on National Emergency Medical Service and constituting this body as a council of the Board of Trustees, to be known as the Council on National Emergency Medical Service. This is a real progressive step, and the work of this group will go forward toward planning for medical care of civilians and military personnel in the event of a national emergency.

Adopted in toto were the recommendations made by Dr. Edward L. Bortz of Philadelphia, our new president. They were:

1. A two-day scientific session for general practitioners at the time of the semi-annual meeting of the House of Delegates.
2. Change of meeting place for the semi-annual session—to convene in a different geographic district each year—at which time the two-day session for general practitioners would be held.
3. Closer affiliation with third and fourth year medical students—possibly by affiliate membership—and re-establishment of a student section in The

Journal, and encouragement of presentation of scientific papers at county, state and even national levels; also to study the possibility of a student section of the scientific assembly.

4. The Secretary, in collaboration with the councils and bureaus, to prepare an attractively illustrated booklet describing the various activities carried on by the Association for distribution to graduating medical classes. (Note: This booklet has been in preparation and was sidetracked by work of the Centennial Session).

5. Further clarification of public relations activities of the Association.

6. More experienced representatives as speakers for lay groups and legislative bodies, and the establishment of a speakers' bureau to assist those representatives.

7. Greater utilization of the Woman's Auxiliary as an instrument in the field of public relations.

8. Establishment by the House of Delegates of a Committee on Nursing Problems.

9. Better channeling of information to the House of Delegates of the activities of departments, bureaus and councils.

10. Active cooperation by the Association with governmental officials to work out a program for prompt medical service in case of another national emergency. (See new Council on National Emergency Medical Service above).

11. The House of Delegates to take under advisement a future building program for the Association headquarters.

The Council on Medical Education and Hospitals adopted new standards for residencies and fellowships in the specialties. These will appear in the proceedings of the House to be publicized in The Journal, and will also be reprinted and distributed.

The Chicago Medical School is making good progress in an effort to improve its educational program in medicine, but it is not yet included on the list of approved medical schools maintained by the Council on Medical Education and Hospitals of the A.M.A.

The National Conference of County Medical Society Officers billed as a "Grass Roots Conference," held its initial meeting in Atlantic City and was unanimously voted continuance. This action was approved by the House. Future meetings will be held for the purpose of developing a working partnership between the A.M.A. and every physician.

The revised constitution and by-laws will lay over for a year.

P.S.: The Atlantic City registration totaled 15,667 physicians, making our Centennial Session the greatest medical meeting ever held anywhere in the world.

Eighty physicians and laymen, who serve as executive officers of national, regional, state, or county medical societies or associations throughout the United States, became charter members of the Medical Society Executive Conference at the first annual meeting of the organization in Atlantic City on June 11, 1947.

Mr. Mac F. Cahal, executive secretary and general counsel of the American College of Radiology, Chicago, was elected Chairman of the organization for the ensuing year. Other officers elected at the first meeting were Mr. R. R. Rosell, executive secretary of the Minnesota State Medical Society, Vice Chairman; and Mr. James R. Bryan, executive secretary of the Medical Society of the County of New York, Secretary and Treasurer. To serve with these officers on the executive committee, the Conference elected Dr. George F. Lull, secretary and general manager of the American Medical Association, and Mr. Theodore Wiprud, executive secretary of the Medical Society of the District of Columbia.

Mr. Cahal succeeded Mr. Wiprud, who was elected chairman of the Conference at the organization meeting which was held in Chicago on December 10, 1946.

In a brief business session following registration in mid-afternoon, the conference adopted a statement of organization setting forth the purpose of this organization as being "to enable medical society executives to improve the quality and efficiency of their services to their respective societies and to the medical profession generally; to provide a mechanism for the exchange of information and experience among medical society executives, for mutual improvement and for fellowship."

The membership qualifications, as approved by the Conference, make membership available "to executive employees of national, state, regional and county medical societies who are compensated for their services by their respective societies."

—From A.M.A. News Letter.

BIRTHS EXCEED ONE AND ONE-HALF MILLION IN FIRST FIVE MONTHS OF 1947

Births in May are estimated to have numbered 302,000 in the United States, according to figures released by the National Office of Vital Statistics, U. S. Public Health Service today. This is 29 percent more than the estimate for May of last year and it brings the total for the first five months of this year to 1,572,000.

Although the birth rate of 26.4 per 1,000 population including the armed forces overseas for the 5-month period January to May, 1947, was nearly 40 percent higher than the provisional rate of 19.1 for the corresponding period of 1946, the birth rate has been lower this year than it was in the last four months of 1946 when it reached record breaking heights. The decrease has taken place in spite of the fact that publications of this office show that the numbers of marriages reported 10 to 12 months ago and throughout 1946 were unusually large. It is possible that the peak in the birth rate in the latter months of 1946 was due not only to first births to newly married couples, but also to births to families who already had children and first births to couples married before or during the war. The fact that the birth rate has decreased while marriages remained high suggests that now second and third births to established families and first births to persons married more than one year are adding less to the birth rate than they did at the end of last year.

The estimated numbers of births in each of the 46 states reporting monthly and the District of Columbia appear in the Monthly Vital Statistics Bulletin being released by the National Office today.

DISCHARGE OF MEDICAL OFFICERS LIBERALIZED

The War Department announced recently a streamlining of discharge criteria for all Medical Department officers effective July 1. All non-volunteer doctors, dentists, dietitians, Veterinary and Sanitary Corps officers will be eligible for separation upon completion of two years' service. Nurses, physical therapists, and officers of the Medical Administrative Corps except those who have volunteered for extended active duty will be eligible for immediate separation.

Critically needed medical officers can still be individually retained where it is essential for the proper care of patients, the announcement stated. At present there are thirty-six specialists being retained as essential in Army hospitals.

ARMY ENGINEERS TO BUILD GREATEST MEDICAL CENTER

What is planned to be the greatest medical research center in the world will be built at Forest Glen, Maryland, by the Corps of Engineers for the Office of the Surgeon General, according to a recent announcement made by Major General Raymond W. Bliss, the Surgeon General. In keeping with technological advances in all fields, based on experiences in the late war, the center will be equipped to anticipate and meet the medical problems of the future as well as to cope with those of the present. The initial cost is estimated at approximately $40,000,000. Construction will be supervised by the District Engineer, Washington, D. C. Engineer District.

Officially designated as the "Army Medical Research and Graduate Teaching Center," the project will consist of a 1,000-bed general hospital, capable of expansion to 1,500 beds; the Army Institute of Pathology building; the Army Medical Museum and Center Administration building; Central Laboratory Group buildings; and the Army Institute of Medicine and Surgery. A working library, animal farm, quarters for the staff and other buildings are included in the plans.

Located just outside of Washington, the new Army Medical Center will have the advantage of close relationship to the Walter Reed General Hospital, the Naval Medical Center, the medical schools of the District and the proposed new Washington Medical Center, with all of whom ideas can be interchanged. In addition, members of the District of Columbia Medical Society, among them some of the finest specialists in the world, and medical experts from other Government departments, will be available for consultation. The Center will also cooperate with the National Bureau of Standards, the National Institute of Health and the National Research Council.

MARRIAGES SHOW GREATER INCREASE IN 1946 THAN DIVORCES

There were more than 2,300,000 marriages and 620,000 divorces in the United States in 1946, according to preliminary estimates released today by the National Office of Vital Statistics, U. S. Public Health Service, Federal Security Agency. These figures set an all time high.

Divorces did not increase as rapidly as did marriages in 1946. Divorces increased nearly 120,000, or about 24 percent, over the 1945 estimate of 502,000. The estimated divorce rate per 1,000 of the population (including armed forces overseas) was 4.4 in 1946 compared with 3.6 in 1945.

Marriages increased about 680,000, or 42 percent, over the 1945 total of nearly 1,620,000. The estimated marriage rate per 1,000 of the population (excluding armed forces overseas) stood at 16.4 in 1946 compared with 12.3 in 1945.

The greater increase of marriages is further shown by comparing the marriage-divorce ratio for each of the two years. In 1945, there were 31 divorces for every 100 marriages; in 1946 the ratio dropped to 27 divorces for every 100 marriages. The marriage-divorce ratio does not reflect the number of marriages in a given year which ended in divorces in the same year, and must be interpreted with caution. Further, the national estimates are subject to many qualifications and in general represent approximations.

COUNCIL ON MEDICAL SERVICE, A.M.A.

BULLETIN NO. 11

NEW BILLS INTRODUCED

S. 1355 by Mr. Cooper, May 27. A bill to amend the Social Security Act to enable States to establish more adequate public-welfare programs, and for other purposes. Referred to the Committee on Finance.

Comment: Identical with H. R. 3636 described below.

S. 1454 by Mr. Taft, June 17. A bill to amend the Public Health Service Act in regard to certain matters of personnel and administration, and for other purposes. Referred to the Committee on Labor and Public Welfare.

Comment: Amends the definition of the term "habit forming narcotic drugs" to include isonipecaine. Also provides for a system of promotion for the Public Health Service similar to that planned for the Army and Navy in pending bills.

S. 1455 by Mr. Taft, June 17. A bill to amend the Public Health Service Act to provide grants to postgraduate schools of public health. Referred to the Committee on Labor and Public Welfare.

Comment: Grants are to be used for the establishment and maintenance of teaching staffs, maintenance and operation of facilities and for scholarships. Grants may also be made for the construction of buildings.

S. 1457 by Mr. Taft, June 17. A bill to amend the Act of September 7, 1916, to authorize certain expenditures from the employees' compensation fund, and for other purposes. Referred to the Committee on Labor and Public Welfare.

Comment: It amends law regarding compensation for injuries to Federal employes by making funds available to pay Federal agencies for the services, appliances and supplies furnished by medical officers or hospitals of such agencies.

H. R. 3464 by Mr. Hand, May 14. A bill to provide for the mobilization of the scientific resources and knowledge of the United States for the purpose of seeking the cause and cure of cancer, heart disease, infantile paralysis, and other diseases of mankind. Referred to the Committee on Interstate and Foreign Commerce.

Comment: The measure establishes a medical research agency governed by a board of five, nominated by the President, one of whom shall be the Surgeon General. The Board shall have a Director at $18,000 per annum. The agency is authorized and directed to initiate, conduct and support scientific research in cancer, rheumatic fever, Bright's disease, diabetes, diseases of the heart and other major diseases, and to investigate the cause and spread of infectious diseases. An initial appropriation of five million dollars is authorized.

H. R. 3548 by Mr. Dingell, May 20. A bill to provide a national health insurance and public health program. Referred to the Committee on Ways and Means.

Comment: Health insurance bill companion to S. 1320.

H. R. 3579 by Mr. Celler, May 22. A bill to provide a national health insurance and public health program. Referred to the Committee on Ways and Means.

Comment: Identical with S. 1320 and H. R. 3548.

H. R. 3599 by Mrs. Rogers, May 23. A Bill to provide medical care for war widows and medical and dental care for war orphans, and for other purposes. Referred to the Committee on Veterans' Affairs.

Comment: Authorizes the Veterans' Administration to provide complete medical care for widows and children of persons who died as a result of service in the armed forces in time of war. Such care shall include hospitalization, domiciliary care, special treatment, furnishing of appliances and transportation, complete dental care for children and nursing service. Reimbursement for time lost and employment of nurse is included.

H. R. 3636 by Mr. Forand, May 27. A Bill to amend the Social Security Act to enable States to establish more adequate public-welfare programs, and for other purposes. Referred to the Committee on Ways and Means.

Comment: Similar to a bill carried by Mr. Forand in the previous Congress and to be known as the "Public Welfare Act of 1947." "Public Welfare" is defined as assistance and "assistance" may take the form of money payment and medical services. "Welfare Services" means family—, adult—, and child welfare services. Services are to be administered at the State level. Federal financial aid would be extended to the States on a basis ranging from 50 percent to 75 percent, total cost depending on the relative per capita income of the State.

H. R. 3762 by Mr. Javits, June 9. A Bill to provide for research relating to diseases of the heart and circulation and to aid in the development of more effective methods of prevention, diagnosis, and treatment of such diseases, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Fulfilling one of his campaign pledges, Mr. Javits introduced the bill establishing in the P. H. S. a National Heart Disease Institute and creating a National Heart Disease Council. The Institute shall make grants in aid for research projects; train personnel in matters pertaining to heart diseases and assist states in the prevention, diagnosis and treatment of heart diseases. The Council will be composed of the Surgeon General, Chief Medical Advisor of the Veterans' Administration, Surgeon General, Army and Navy, and twelve members appointed by Surgeon General, P. H. S.

H. R. 3851 by Mr. Blackney, June 16. A Bill to provide additional inducements to physicians and surgeons to make a career of the United States military, naval and public health services, and for other purposes. Referred to the Committee on Armed Services.

Comment: Similar bills are pending covering the same subjects for the separate services.

H. R. 3924 by Mr. Wolverton, June 20. A Bill to amend the Public Health Service Act in regard to certain matters of personnel and administration, and for other purposes. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Companion House Bill to S. 1454.

H. R. 3925 by Mr. Wolverton, June 20. A Bill to amend the Public Health Service Act to provide grants to postgraduate schools of public health. Referred to the Committee on Interstate and Foreign Commerce.

Comment: Companion House Bill to S. 1455.

H. R. 3927 by Mr. Michener, June 20. A Bill to amend the Act of September 7, 1916, to authorize certain expenditures from the employees' compensation fund, and for other purposes. Referred to the Committee on the Judiciary.

Comment: Companion House Bill to S. 1457.

ACTION ON BILLS:

S. 140 (Mr. Taft and Mr. Fulbright) Department of Health, Education and Security was reported with amendments in the Senate by the Senate Committee on Expenditures in the Executive Department. Report No. 242.

The measure carries the sponsors' names but is a compromise bill embracing the spirit of the Aiken Bill (S. 712). As it now reads, the Federal Security Agency is to be elevated to Department status. It incorporates the view of a majority of the witnesses that the Under-Secretaries of Health, Education and Public Welfare need not be professionally trained in their respective fields.

As amended, S. 140 provides safeguards to insure state autonomy of operation and control under local supervision, and makes non-physicians eligible for appointment to the health advisory committee. It further authorizes and directs the Bureau of the Budget to make a study of other departments and agencies not now included in Federal Security Agency with a view of determining the desirability of bringing these activities relating to health, education and public welfare within this new department.

An effort may be made to amend the bill on the Senate floor so as to require that the Under-Secretary of Health be a physician.

H. J. Res. 167 (Mr. Gavin) Recognition of Uncompensated Services under Selective Training and Service Act passed the House by unanimous consent June 2, 1947.

H. R. 3215 (Mr. Andrews) Army and Navy Medical Services Corps Act of 1947 passed the House by unanimous consent June 2, 1947.

H. R. 2700 Labor Federal Security Appropriation sent to a conference committee of both houses.

H. R. 3839 Independent Office Appropriation Bill 1947.

CANCER RESEARCH:

Through the efforts of Honorable Everett Dirksen, Representatives from Illinois, the House has inserted in the appropriation for the Atomic Energy Commission a provision earmarking $25,000,000 for research in connection with control of cancer. The Atomic Energy Act authorizes the Commission to exercise its powers in connection with research into matters pertaining to health, and it is believed that progress already made justifies continued activity in this field to combat this increasingly menacing disease. This move may eliminate the need of enacting special legislation in this field.

NEBRASKA'S HOSPITAL SURVEY AND PLANNING PROGRAM

Nebraska's Hospital Survey Planning and Construction program can now be developed. The 1947 Unicameral Legislature on March 6, 1947 passed the Hospital Survey and Planning Bill L.B. 160, and it was signed by the Governor on March 21, 1947. The companion act, known as the Hospital Licensing Bill L.B. 250, was passed by the Legislative body on June 2, 1947, being signed by the Governor on June 9, 1947.

Both bills designate the State Department of Health as the responsible administrative agency. There is a provision for a common hospital advisory council to consult and advise with the State Department of Health for the Hospital Survey Planning and Construction Program in accordance with L.B. 160, and for the development and adoption of standards, rules and regulations for all hospital type of institutions, in accordance with L.B. 250.

In the Appropriation Bill L.B. 2, for the biennium 1947-1949, in Section 22, Department of Health, a new item was included for the State's portion in conduct of the Hospital Survey and Planning Program, and some Federal monies will be available over a five-year period to aid in the Nebraska program.

There are two specific phases of the program, i.e., (1) Hospital Survey and Planning Program divided into: (a)—the survey and planning stage and (b)—construction stage; (2) The Hospital Inspection and Licensing Program, which will govern all hospitals and institutions rendering hospital, nursing or other types of in-patient service for patients over a period of twenty-four hours or more, exclusive of relatives. Since the above measures do not carry the emergency clause, neither will become effective until September 7, 1947. However, since the Department of Health, through its Division of Maternal and Child Health, has had the responsibility of inspecting and licensing maternity homes since 1942, and later according to Section 71—701 to 706, 1945, Cumulative Pocket Supplement to Nebraska Revised Statutes of 1943, the Department plans to set up a Hospital Division with funds available from other sources through the period July 1, 1947 to September 7, 1947 in order to close out the activities of the maternity home inspection and licensing program, develop the new rules and regulations under the Hospital Licensing Law L.B. 250, and plan the initial stages of the Hospital Survey and Planning Program.

The division will consist of a Director, a Hospital Field Worker, and a Secretary. As the activities progress, it will be necessary to call upon many of the technical fields, such as: architectural, mechanical, and constructional engineering; hospital administrative, medical, dental, nursing, and others as may be deemed necessary. The statute sets up a common advisory hospital council to recommend, advise and consult with the Director of Health, Nebraska State Department of Health, in cognate of the program.

The initial responsibilities of the division when it becomes active, September 7, 1947, will be to: (1) compile, analyze and arrange the information of existing facilities; (2) develop a Hospital Survey and Planning Program with establishment of priorities, in accordance with the meaning of Public Law 725 the National Hospital Act, and L.B. 160, the State Hospital Survey and Planning Act. The above material, when compiled, is to be summarized and printed in newspapers having state-wide and/or county-wide circulation, in accordance with designation of state governing authorities. It will then be submitted to the United States Public Health Service for approval. After final approval and with corrections made, again a summary will be prepared for publication in brief form, as above stated.

In the meantime, it is contemplated that a second stage of the activity will be accomplished, i.e., report the results of the initial hospital survey, and estimate needed facilities with estimated priorities which will be presented to the Hospital Advisory Council. Applications will be sent to local communities who have already, or will have by that time, expressed desires for participation in the Federal Grants and Aid for construction.

It is here that part (b) of the Survey Planning and Construction Program will begin to take shape. There are approximately four phases to the application, parts of which will be rendered between the original application and final approval of a local project, estimated to cover a period of approximately nine months to one year. It is possible some projects may obtain final approval in a shorter period of time if they have all data available, construction plans well organized and different portions of the four-part application can be submitted in rather "rapid-fire" order. When the plan of an individual construction program has been approved by the Hospital Avisory Council, in accordance with priorities and thereupon approved by the state health authorities, the application will be sent to the Surgeon General, United States Public Health Service, for final approval of a project. Upon that approval, the state agency will be empowered to certify portions of the construction money for an individual project in approximately three or four stages of the construction period.

Some $685,000 have been made available for construction projects in the State of Nebraska for the coming year. The beginning of the program will necessarily be very tedious and perhaps somewhat irksome to many who have already developed plans for, or have in construction, a definite program. The Department of Health seeks the indulgence and a kindly cooperative spirit of local communities looking forward to participation in the Federal Grants for construction.

Construction funds in the amount mentioned have no relationship whatever to the survey and planning funds on a state and federal level mentioned in the forepart of the discussion. It is to be noted that every dollar of Federal monies supplied on a local hospital construction program must be matched by at least two dollars of local monies. The local community fund must assure full operating integrity of the hospital facilities for at least two full years, following completion of construction and beginning with actual operation of the institution.

HOSPITAL INSPECTION AND LICENSING

The inspection and licensing program requires the setting up of minimum standards of operation, and rules and regulations for the maintenance of those standards in all institutions rendering any type of hospital nursing or other in-patient service, for not just maternity and lying-in portions alone, but for the entire hospital facility, including the assurance of proper medical, nursing, administrative, and other professional or necessary personnel to provide adequate protection of those receiving care in institutions in Nebraska.

It would appear this might endanger the continued operation of many institutions. It will, however, be the policy of the State Department of Health to render every possible consultative aid for all established and operating institutions to gradually meet the minimum requirements over a period of at least one full operating year, following the final completion of the Rules and Regulations. Prior to this, it is contemplated that temporary permits of operation will be issued to institutions, pending the final approval by the Hospital Advisory Council of the Rules and Regulations culminated jointly by the Hospital Council and the Director of Health.

All new institutions and additions to older institutions must satisfy state fire standards and be of fire resistant materials, or provide adequate safeguards against fire hazards to patients and meet general or specific standards of construction and equipment set up by the Department of Health.

A WIDER HORIZON FOR THE GENERAL PRACTITIONER*

One of the laments most frequently voiced by the public and echoed, when it seems judicious to do so, by the medical profession, is What is to become of the general practitioner? Well, what is?

We are all familiar with the complaints about the undue rise of specialists, about the lengths to which specialism has been allowed to progress—or, should we say, to which the practice of medicine has been allowed to slump?

If parts of this editorial seem faintly personal we are sorry, but we do not apologize, because personal experience, honestly related, is the only basis for true history from which pertinent conclusions may be drawn.

In the first place, what is a hospital? The general practitioner would probably reply that it was an institution he couldn't get his patients into. We think his reply would be fairly correct, and propose to examine the reasons why this is so.

Thirty-five years ago the hospital was an institution with a big name, staffed by the professors in our medical schools, in which internships under professors of the greatest reputation were eagerly sought by such medical students as could afford to take them. Many of us could not.

For the fortunate ones who could, the hospital offered ample clinical material where the art of caring for the sick was taught by the most experienced teachers. Neither the instructors nor the pupils were paid. Both basked in an atmosphere of altruism that was wonderful — if you could afford it. At the end of two years interns would emerge from the hospital with a considerable reputation; they had succeeded not only in getting into the institution but in getting out of it. Many of them had coasted into success upon the coat-tails of their preceptors. They were known to an awestruck circle of contemporaries, not only as graduates of a certain hospital, but also as "the best surgical assistant Dr. Blank had had in years." Thus they frequently were introduced into fashionable practice and were so well rewarded financially that when their predecessors died they were able to step into their shoes. It was an excellent arrangement—for a few. And, let us emphasize again, for the few who could afford it.

In the meantime, what happened to those who could not? They went into general practice. Their patients were not as a rule anxious to go to hospitals and preferred to be cared for at home. Under such conditions the general practitioner did fairly well. When a patient became obviously desperately ill, he would be sent to the hospital, there to be operated on by a brilliant classmate who had a hospital appointment. Sometimes the brilliant classmate would be so touched by the shabby appearance of his less fortunate brother, who had referred the case to him, that he would share with him a portion of the substantial fee received from the patient. Sometimes the less fortunate brother would spread the tale of the charitably-minded surgeon and other general practitioners would refer cases to him in the hope of encountering similar financial justice. Thus arose the heinous practice now slightingly referred to as "fee-splitting." We do think it a heinous practice, because it results in patients being referred not to the best, but to the most, shall we say, generous surgeon. But we think it only fair to point out the genesis of the custom.

Then came the advent of the so-called "teaching hospitals," staffed by cloistered graduates who often never had engaged in the private practice of medicine. After their internships they had stayed on and on as residents, and after they had become sufficiently expert were frequently drafted by other institutions to become full-time professors of surgery or medicine. As scientists they are wonderful, but they have small comprehension of, or sympathy with, the problems of the general practitioner.

And during this time, the public has become more and more hospital conscious. It wants to go to the hospital for the mildest stomach ache or sore throat. And with the spread of voluntary hospital insurance it can afford to do so.

Naturally the Blue Cross is anxious—for its own sake—that its clients patronize only the hospitals with the best staffs, in which a patient's stay is likely to be as brief as possible.

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* Reprinted from New York State Journal of Medicine.

Trustees of voluntary hospitals will tell you, with tears in their eyes, that, as trustees of charitable funds they must assure the spending of those funds for providing the best closed staffs possible. That sounds perfectly reasonable until you examine more closely and find the number of voluntary hospitals that allow themselves to be victimized by admitting compensation cases at rates less than the hospitals pay for the care of charity cases, cases for whose care they were originally founded.† One would think that worldly-minded trustees would not allow themselves to be so bamboozled either by state compensation boards or by insurance companies. Perhaps this is slightly beside the point, but it all goes to show how much farther and farther away the general practitioner is being pushed from the best facilities for, and contact with, the latest developments of scientific medicine.

It is always easier to point out the defects of a system than it is to propose a remedy. Some of our municipal hospitals are now staffed by members of the faculties of various universities, thus assuring the indigent the same degree of skillful care as that available to the rich who can afford to pay for it. That sounds well on the face of it, until we see that it is more and more narrowing the field to the general practitioner.

Suppose that the general practitioner were allowed to take his patient under voluntary hospital insurance to a municipal hospital. Suppose that he were kept in charge of the patient from the beginning of his illness to the end. We think there would be a considerable resurgence of that spirit which resolves to shoulder personal responsibility and see the patient through. We are confident that there are still enough generous practitioners of medicine of the highest reputation who would be willing to help out their less fortunate colleagues in the matter of hospital appointments, with problems that to them seem insoluble.

Suppose that under such a system the patient gets well? The father says "I never though so much of Dr. Smith. I grew up with him and we live on the same block. But when my kid got polio Smith was the only man I could get and he took care of him. He took him to the Municipal Hospital. He saw him every day. He seemed to be doing all right, but Smith wasn't quite satisfied and called in Dr. Jones. He's the greatest authority on polio in these parts. I don't know whether my kid's going to get completely well, but I do know that he's had the best of care and for money that I could afford to pay, and I've paid it. No matter what happens in my family from now on, Smith's the man for me."

Dr. Jones says "I never heard of that man Smith before. But he called me in consultation to see a case of polio he had in the hospital and he'd done everything all right. There was only one thing I could suggest and if I hadn't been there I guess he would have thought of it himself. I didn't get much of a fee, but I got something, and under the old system I wouldn't have been paid a cent."

Dr. Smith says "I got called in on a case of polio the other night. I wasn't sure at first what the trouble was, but the next day I got the kid into the Municipal Hospital. The third day I called in Dr. Jones. You know he's got all hell of a reputation but he wasn't a bit the kind of stuffed shirt I thought he'd be.

"His fee was only ten dollars, but he said that in the old days he would have had to see the kid anyway and wouldn't have been paid anything. It was all right with him. And he's all right with me."

And, so what have you? Three satisfied people. A considerable cementing of the bonds that should be holding the medical profession together. Solidarity instead of disagreement. Sickness paid for without hardship.

It may sound like a dream, but it is one that the medical profession, hospital trustees, municipal governments, and the general public would do well to make come true.

YOUR STATE MEDICAL LIBRARY

SOME INDEXES TO MEDICAL PERIODICAL LITERATURE

As every physician knows only too well, the literature of medicine has grown to tremendous proportions. The rapid progress of medical science during the last half century or more has brought about an increase in periodical literature which would make it virtually impossible for an individual to keep abreast of the reports of the latest discoveries in his field, to secure all the data needed for a scholarly, well-rounded paper, or to review the literature on any medical subject were it not for the excellent and comprehensive indexes to the literature available in a medical library.

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†New England J. Med., 236:491 (March 27) 1947.

Foremost among these indexes is the Index-Catalogue of the Army Medical Library, the greatest work of bibliography ever attempted in medicine. William H. Welch, at a special memorial meeting of the Johns Hopkins Hospital Medical Society, May 26, 1913, said, "I question whether America has made any larger contribution to medicine than that made by (John Shaw) Billings in building up and developing the Surgeon General's Library and in the publication of the Index-Catalogue and the 'Index Medicus.' That in my judgment is America's greatest contribution to medicine____"(5) That his views did not change with time is shown by a statement which he made to the Librarian of the Army Medical Library shortly before his death in 1934. "I have been asked on more than one occasion what have been the really great contributions of this country to medical knowledge. I have given the subject some thought and think that four should be named:

1. The discovery of anaesthesia.
2. The discovery of insect transmission of disease.
3. The development of the modern public health laboratory, in all that the name implies.
4. The Army Medical Library and its Index-Catalogue, and (he added slowly) this library and its catalogue are the most important of the four."(3)

Sometime prior to 1836, the Surgeon General of the United States Army established the library by the act of placing upon a shelf in his office a handful of books for the use of himself and his assistants. The modest growth of the library during its early years is revealed by the fact that its first printed catalogue, dated May 10, 1864, includes but 1,365 volumes and that the catalogue of October 23, 1865, includes 2,253 volumes.

On December 31, 1864, Billings, a medical officer in the United States Army, was assigned to duty in the Surgeon General's Office and, unofficially at least, became the librarian. At about this time, a "slush fund" of $80,000, turned in from the Army hospitals at the close of the Civil War, was made available to him for the purchase of books and other publications for the library. Under his direction, the library grew rapidly; the three-volume catalogue of 1873 included about 25,000 volumes and 15,000 single pamphlets, and in 1876, when the Specimen Fasciculus, the immediate forerunner of the Index-Catalogue, was published, the holdings totalled about 40,000 volumes and a like number of pamphlets(2).

The Index-Catalogue is an author and subject index in a single alphabet of the significant material in one library, the Army Medical Library. It does not pretend to be a world bibliography of medicine; Billings always maintained that it is merely an index to a particular collection. However, since his interests were general and his scholarship profound, the library in time came to contain practically everything of importance in its subject field. Books, theses, and pamphlets are entered under both author and subject, while periodical articles are entered under the subject only. The first volume, listing material from A to Berlinski, was published in 1880, and additional volumes were published until the alphabet was completed with the sixteenth volume in 1895. A second series, on the same plan, was then issued during the years 1896-1916, indexing the material received by the library since the publication of the first series. This was followed by a third series, 1918-1932, also on the same plan. The fourth series, begun in 1936, is now about half completed.

The very magnitude of this work precluded any possibility of its being a record of current medical literature. Billings, therefore, proposed to supplement the Index-Catalogue with another index, the Index Medicus, a monthly publication which "will record the titles of all new publications in Medicine, Surgery, and the collateral branches, received during the previous month. These will be classed under subject headings, and will be followed by the titles of valuable original articles upon the same subject, found, during the like period, in medical journals and transactions of medical societies. The periodicals thus indexed will comprise all current medical journals and transactions of value, so far as they can be obtained."(1) The first number appeared January 31, 1879, and, with the December number, the volume was completed. Alphabetically arranged indexes of authors and subjects followed the last number. Thus, each volume formed a complete bibliography of the important publications in the field of medicine for that year. This plan of twelve monthly issues per volume was followed until 1921, except for the years 1900-1902, when it was suspended. This gap was filled by the Bibliographia Medica, published by the Institut de Bibliographie, of Paris. In 1921, the Index Medicus became a quarterly and the material included was arranged in an alphabetical subject list instead of in the classified list as in the previous series. The annual index of subjects was omitted, but an annual index of authors was prepared.

In 1927, the Index Medicus merged with the Quarterly Cumulative Index, published by the American Medical Association, to form the Quarterly Cumulative Index Medicus. The Q.C.I.M., as it is often called, was, until recently, published in April, July, October and January of each year. The April and October numbers were paper bound and were superseded by the cumulated July and January numbers, respectively. Recently, the editors of Q.C.I.M. have abandoned the April and October numbers. Thus, for each year, there are now two permanent, bound volumes, one indexing material which appeared during January-June, the other, that during July-December. The arrangement continues that adopted by the Quarterly Cumulative Index; that is, the main index contains only articles, these arranged by authors and subjects, all in one alphabet. A list of new books published during the half-year covered by each volume precedes the main index.

Because of the time lag between the current literature and the appearance of the latest permanent volume of the Q.C.I.M., one must resort to another bibliographic tool, the Current List of Medical Literature, published by the Army Medical Library, and for sale by the Superintendent of Documents, U. S. Government Printing Office.

The Current List is a weekly list of the contents of the latest issues of journals received by the Army Medical Library, the journals being roughly classified under 44 groups. The last number of each month is a subject index of the articles listed that month. According to Dr. Claudius F. Mayer, the editor of the Index-Catalogue, "Its scope is to fill in the time between the issues of the printed and better classified bibliographical keys to medicine." He points out that it is not an index to the literature but is ". . . an almost up-to-date . . . register of a conglomerate of journal articles received by a single large medical library and arranged in some rough groups of journals, with no attempt at a systematic classification or proper indexing of subject"(4).

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Tuberculosis Abstracts

Physicians have long observed that tuberculosis attacks the upper lobes of the lung by preference. A physiological explanation for this fact has been advanced. This hypothesis, if accepted generally, would put the standard treatment for tuberculosis —bed rest—on a sound scientific foundation, and mark a significant advance in our knowledge of infection and therapy in tuberculosis.

APICAL LOCALIZATION OF PHTHISIS

No discussion of human tuberculosis and its management is complete or convincing unless it takes into account the fact that, in its inception and throughout much of its course, phthisis in adults is confined to the upper third of the lungs. Most members of white and many members of yellow racial groups are almost immune to tuberculosis except in this region. It is a remarkable fact that, even after the sputum and gastric washings contain bacilli consistently, pulmonary lesions for years may be limited to the upper third of the lungs.

Explanations of this curious predilection for the apex have been unsatisfactory. Those who have most consistently urged bed-rest for the treatment of phthisis seem unconcerned with the apical localization and its significance in the pathology and therapy of tuberculosis.

The relation of man's erect posture to the physiological functioning of the lung is usually ignored. Recently published data on blood pressures in the right ventricles of human hearts show that when a tall, long-chested individual is standing or sitting the pressure of the column of blood from the right ventricle to the apex of lungs is equal to or greater than the mean arterial pressure in the pulmonary arteries. Thus the flow of arterial blood will be greatly restricted or even absent at the apices of the lungs of most adults while they are in the erect posture. Nor at such times is tissue fluid or lymph produced by filtration in this area since it requires nearly 15 mm. Hg pressure to overcome the difference in osmotic pressure between the plasma and the pulmonary tissue fluid.

As a result of the decreased flow of blood addition of carbon dioxide to and removal of oxygen from alveoli in the apical region will be minimal. Tubercle bacilli reaching this tissue will be in an optimal atmosphere to support their metabolism although this is probably not an important factor in apical localization.

As long as the subject is sitting or standing, the pulmonary arteries can bring few antibodies to the apical region and removal of bacterial products by lymph, or dilution by diffusion into the blood will be almost nil. Only when the patient is recumbent will these tissues be protected against accumulation of toxic substances. Removal of bacteria to the lymph nodes will be suspended during most of the waking hours, as will the replacement of antibodies and of monocytes from the blood.

In view of these facts, it is not remarkable that active tuberculosis so regularly begins in this region, or that it shows a predilection for the tall, long-chested individual and the lively young people who get a minimum of sleep. Lack of rest is important in that it gives the bacilli the maximal number of hours of optimal growth conditions and the tissues the minimal number of hours when the neutralization and dilution of toxic products, and the supply of antibodies and blood-borne phagocytes are as adequate at the apices as elsewhere in the lungs.

The great frequency of silicotic lesions at the apex also may be due to the fact that dust particles reaching this region will be removed by phagocytes less rapidly, and the injurious substances will be diluted and removed more slowly than in other parts of the lung.

This explanation of apical susceptibility is borne out by the statistics on the relationship of pulmonary tuberculosis and heart disease. Where the pulmonary circulation is depleted, as in cases of pulmonic stenosis, the incidence of active tuberculosis is high. Where there is pronounced mitral stenosis and the pulmonary circulation is engorged, cases of pulmonary tuberculosis are a rarity. This is not a matter of academic interest only. If the explanation given above is correct, obviously the ideal treatment of the early apical lesion is complete recumbency for most of the 24 hours. Clinicians who insist on "complete bed-rest" should realize that propping the patient up in bed for more than half an hour at a time interferes with the correct postural management.

So long as bed-rest remains an empirical and nonspecific form of therapy, it will be difficult to enforce it on intelligent people who feel well. An understandable, physiological explanation will make their cooperation more certain. To every adult with an apical lesion the hazards of the erect posture and the value of recumbency should be stressed. However, complete bed-rest, with its attendant discomfort and higher cost of nursing care, may not be superior to many hours of recumbency with brief periods out of bed.

Prolonged bed-rest will be better borne if numerous and gradually lengthening periods of sitting up or strolling about can be alternated with recumbency. A consideration of the pathogenesis of the apical and subapical lesions suggests that this may be sound practice in patients not prostrated by disease.

—Apicol Localization of Phthisis, William Dock, M.D., American Review of Tuberculosis, April, 1946.

POSTURAL FACTORS IN APICAL TUBERCULOSIS

The theory that apical tuberculosis is due to postural ischemia accounts for its frequency in those young adults, studious or playful or both, who get little rest and are continuously erect 14 to 20 hours daily. If accepted, this theory also explains why bed-rest alone is effective in so many of these cases but of much less value in those with pulmonary basal lesions or tuberculosis of the kidney, epididymis or skin. When patients are propped up in bed to read, ischemia of the apex is not abolished. The effectiveness of bed-rest is thus greatly increased by outdoor exposure during the day, as the breezes and bright light discourage reading and promote appetite and sleep by stimulating the skin and tiring the eyes. Where patients are outdoors during the day, they spend the maximal number of hours quiet and completely recumbent. However, it seems not impossible that brief intervals out of bed for meals and to facilitate nursing would not unfavorably affect the "cure" and make it less demoralizing and costly.

The new understanding of apical tuberculosis will make such therapy as complete recumbency easier for patients to accept. While awaiting specific antibiotics capable of controlling this disease, physicians will welcome a reasonable explanation for the pathogenesis of apical tuberculosis and for the therapeutic method which is still the main reliance in dealing with the commonest cause of prolonged disability and of death among young adults.

—Editorial, Journal of the American Medical Association, July 13, 1946.

DEATHS

A. B. Cimfel, M.D., Scotia, Nebr. Born in Stanton County, Nebraska in 1914. Graduated from the University of Nebraska Medical College in 1939. Was a member of a local and state Medical Society and a Fellow of American Medical Association. Died June 10, 1947 at St. Mary Hospital, Columbus. Surviving are his wife, a daughter age 5 years, and a son age 2 years.

C. R. Laird, M.D., Grand Island. Formerly a member of the staff of the State Hospital at Ingleside. Born in 1881. Graduated from Creighton University School of Medicine in 1913. Served in the Medical Corps of the United States Army in World War I. Dr. Laird was a member of the Nebraska State Medical Association and of American Psychiatric Association. He was also a member of a Hastings Masonic Lodge. He died July 4th, 1947. Surviving are a son and two daughters.

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HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. C. M. Coe has opened an office at Wakefield.

Dr. Clyde W. Wilcox, formerly of Ansley, has located in Alliance.

Dr. James M. Brown, until recently in Bedford, has located in Clarkson.

Dr. H. M. Robbins of West Point has joined the Navy as Commander in the Medical Corps.

After an active practice of 40 years, Dr. F. W. Plehn has given up his office in Scottsbluff.

A new doctor at Meadow Grove is Dr. Robert Barr who has purchased the office of Dr. Kindred.

Dr. LaVerne Steffens of Nehawka has become associated with Dr. A. Kintner of Missoula, Mont.

Dr. E. Holevtchiner of Omaha celebrated his 87th birthday on July 7th. He was in his office and made house calls as usual.

Dr. Hal Demay who is associated with his father in Grand Island has become resident in pathology at the Methodist Hospital in Omaha.

Dr. Austin Smith, formerly connected with the United States Public Health Service, has become associated with Dr. A. E. Reeves of North Platte.

Dr. J. Harry Murphy of Omaha addressed the Woodbury County Medical Society in Sioux City, Iowa, on "Acute Anterior Poliomyelitis" in June.

Attending the annual session of the American Ophthalmological Society in Hot Springs, Virginia, in June were Dr. W. H. Stokes and Charles Swab of Omaha.

Dr. Charles W. Wilson, a former Kansan, who served with the Medical Corps of the United States Marines has become associated with Dr. J. H. A. Peck at St. Francis.

Dr. G. T. Anderson, who, following military service was associated with Dr. O. V. Calhoun of Lincoln, has joined his father in the practice of medicine in North Platte.

Dr. Richard F. Brendel of Plattsmouth spent the month of June in the East where he took some work at Columbia University of New York City, New York post graduate medical school.

Dr. H. I. Stearns was one of the heroes of the recent flood in Cambridge. Using his motorboat, he rescued many families who otherwise would have drowned in the flood, according to press reports.

Additional personnel to the Grand Island clinic, according to newspaper reports, are Dr. R. C. Cowger, formerly of Hastings; Dr. Harvey C. Anderson, of Wolbach, and Dr. Carl H. Maggiore. All three are ex-service men.

Dr. James F. Kelly of Omaha presented a paper on "Gangrene" at the A.M.A. Sessions in Atlantic City.

Dr. A. E. Bennett, Omaha, gave a paper before the Association on the "Susceptibility to Accident Proness in Multiple Sclerosis." Dr. Bennett also addressed the United States Naval School at Bethesda, Maryland, on June 19, on "The Mismanagement of Psychiatric Patients."

ARTICLE ON DOCTOR SHORTAGE 'NONSENSE'

The reason for the cessation of the accelerated program in most medical schools and the reduction in freshman enrollments to prewar levels, according to an editorial in the June 28 issue of The Journal of the American Medical Association, is that "medical educators were not doing as good a job of training physicians during the war as is now desired."

The Journal states that "more than 7,000 extra doctors were produced during the war. This was necessary. In many schools, facilities and strength of faculty now do not warrant maintenance of large enrollments or an accelerated program, without a serious sacrifice of high quality. Numbers can never replace quality, especially in medicine."

The editorial says in full:

Recently a national periodical—Collier's—published a misleading article by Albert Maisel entitled "So You Can't Get a Doctor!" This long and somewhat confused statement purports to demonstrate that there is an acute shortage of doctors in this country and that deans of medical schools are callous to this alleged need, as shown by termination of the accelerated program in most schools and the reduction in freshman enrollments to prewar levels.

Much of the material in this article is sheer nonsense. The author begins with a partial quotation taken from a publication of the American Medical Association, taken out of its context, predicting a postwar shortage of doctors. Actually this estimate was made when the end of the war seemed far distant and the military authorities were refusing to allow able bodied men to enter premedical studies. The figures quoted were based on military estimates of the physician need for a large peacetime army and navy, universal military training and a staff for the Veterans Administration three times the number now actually employed. Only a fraction of the anticipated number of physicians is now employed in these services.

While contending that maldistribution of doctors is not the major factor in the alleged shortage, Maisel selects as outstanding examples two states with per capita incomes well below the national average, and—of all places—Kelley's Island, four miles out in Lake Erie! The evidence for shortages even in large cities is based on replies to telegrams asking whether there exists in large cities a "surplus of physicians available for transfer elsewhere . . ." No wonder negative replies were received from 15 cities. Even where a surplus might exist, physicians are not "available for transfer" to a place to which they do not choose to go any more than are engineer or day laborers.

Whether or not there is a real shortage of doctors requires a far more careful study than the mere sending of a few telegrams. Such studies are under way in several states and in the country at large. The population of physicians in this country has increased somewhat more rapidly than the population at large in the past 20 years. Whether or not there is real total shortage, some maldistribution prevails and redistribution is extremely difficult in a democracy. Men are free to work in a place where there are facilities for good work, such as hospitals and diagnostic equipment, stimulating professional and educational contacts and reasonably good family living conditions, and where a reasonably good income is possible.

There is close correlation between the per capita income of states or counties and the numbers of physicians who locate in any area. Such location is insignificantly affected by establishing more medical schools, increasing enrollments or accelerating the curriculum. More promising are the efforts now being made: the provision of hospital and diagnostic facilities under the Hospital Survey and Construction Act, the extension of prepaid medical care insurance, the strengthening of the status of the general practitioner, the information service on areas needing physicians, the intimate liaison of organized medicine with farm organizations, and similar considerations.

The reason for the cessation of acceleration and the return to prewar enrollment numbers is simple; medical educators were not doing as good a job of training physicians during the war as is now desired. More than 7,000 extra doctors were produced during the war. This was necessary. In many schools, facilities and strength of faculty now do not warrant maintenance of large enrollments or an accelerated program, without a serious sacrifice of high quality. Numbers can never replace quality, especially in medicine. On these questions there is virtually unanimous agreement among medical educators, deans, faculty members, the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association.

MANY PATIENTS HAVE EMOTIONAL ILLNESS COMPLICATING PHYSICAL DISEASE

At least one half of all patients have their symptoms as a result of emotional difficulties in addition to and as a part of the physical disease, according to Raymond W. Waggoner, M.D. of Ann Arbor, Mich.

"Every patient will respond more promptly to treatment of any disease if the physician understands and adequately handles the emotional as well as the physical aspect of the illness . . . therefore it is essential that every physician, whether he is in general practice or in a specialty, obtain some understandiny of psychiatric principles and utilizes these principles in the treatment of all his patients," states the author.

Writing in the June 28 issue of the Journal of the American Medical Association, Dr. Waggoner, Professor of Psychiatry at the University of Michigan, points out that only about two per cent of the registered physicians in this country are trained in psychiatric procedures; therefore the task of treating emotional illness falls upon the general practitioner.

"Recognition of the importance of emotional factors in illness, a willingness to spend more time with such patients, an understanding of some of the motivating factors in such conditions and the ability to help in the solution of such problems is an essential characteristic of every good physician," states the author.

The physician cautions that since patients tend to exaggerate symptoms of physical illness, great harm can be done by the prescription of unneeded rest.

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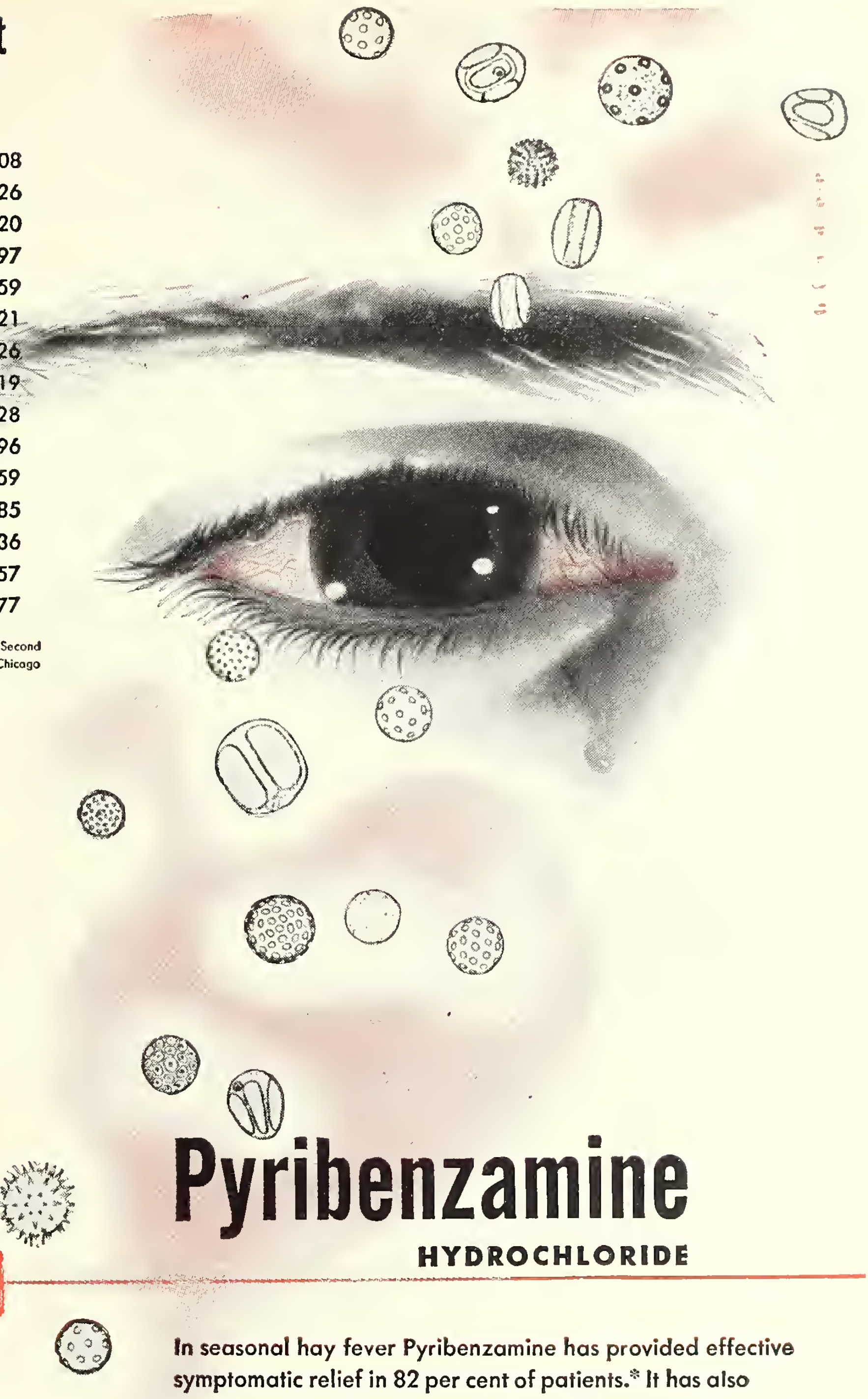
Boston	359
Detroit	1921
St. Louis	2826
Chicago	1619
Des Moines	5228
New Orleans	796
Omaha	4159
New York	585
Portland, Oregon	36
Philadelphia	1257
Dallas	2077

*"Allergy in Practice," Feinberg, S. M., Second Edition: 1946, Year Book Publishers, Chicago



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*Feinberg, J.A.M.A. 132:702, 1946

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CHILD BEARING AN IMPORTANT FACTOR IN CANCER OF THE CERVIX

Married women who bear children are more susceptible to cancer of the cervix than unmarried women, according to a 21-year study of 1,342 patients who were treated at Bellevue Hospital, New York, one of the largest general hospitals in the country.

Writing in the June issue of The American Journal of Roentgenology and Radium Therapy, two New York physicians connected with Bellevue Hospital state that child bearing appears to be an important factor in the high incidence of cervical cancer, which is one of the commonest of cancers occurring in women.

The doctors who made their report in The Journal were Ira I. Kaplan, Director of the Radiation Therapy Department, and Rieva Rosh, visiting Radiation Therapist, of Bellevue Hospital.

They reported on the results of x-ray and radium treatment on patients with cancer of the cervix. Of the 1,342 patients, 426 were "so extensively involved" that no active treatment could be attempted.

Of the 916 patients who underwent treatment, 835 were married and 13 single. In 50 cases the marital status was not recorded. Of the known married patients, 777 had borne one or more children and of these 418 bore four or more children.

"New York City has a very large Negro population and one would expect a large number of cases of cervical cancer in Negro women," the doctors stated in their report. "However, only 163 were of this race in our service. There were 707 white patients treated and in 46 cases color was not recorded.

"While as a whole the number of Jewish patients coming to Bellevue Hospital is still small, our survey shows that cervical cancer is not common among Jewish women. Of the 1,342 cases, only 25 were in Jewish women. The reason for this small number is not definitely understood."

The two New York physicians stated that on the basis of their experience over 21 years, they believe that x-ray and radium are the best combination for treatment of cervix cancer. X-ray therapy, they said, should precede the local application of radium, because it is "extremely effective in controlling pelvic involvement, alleviates infection and often appreciably reduces the local lesion."

'MODERATE DRINKING' IMPLIES TAKING TWO COCKTAILS A DAY

A moderate drinker takes two cocktails or highballs a day, states a medical consultant in answer to a query in the July 12 issue of The Journal of the American Medical Association.

His reply says that "for the average, so-called healthy adult, on a good diet, two cocktails or highballs a day would by most informed people be considered 'taking alcohol in moderation,' particularly if not taken on an empty stomach before the morning breakfast, and if taken shortly before, during or shortly after the evening meal. But taken under identical conditions and rate, this quantity of alcohol would produce much higher blood alcohol in a person weighing 100 pounds than in a person weighing 200 pounds. The late Dr. Raymond Pearl of Johns Hopkins Medical School reported

(Continued on p. xxiv)

The subject is: **Allergy**

The advice, as usual, is:
"**SEE YOUR DOCTOR**"

In LIFE and other national magazines, Parke-Davis presents a timely message about allergy (shown below). It appears in full color . . . reaches an audience of nearly 23 million people. It is No. 206 in the "See Your Doctor" series published in behalf of the medical profession.

Some things you should know about **allergy**

No. 206 in a series of messages from Parke, Davis & Co. on the importance of prompt and proper medical care.

Medical science has discovered many interesting things about allergy.

If today you tell your doctor that you suffer from asthma, sneezing attacks, or itching eyes, one thing he considers is the possibility that you may be *allergic*—which means that you may be sensitive to some substance which causes no trouble for most people.

In discovering this offending substance (known as an allergen), your doctor acts as a detective. He may ask detailed questions about the time of your attacks, where they occur, the furnishings of your home, the food you eat.

Such questions may give him clues to the nature of your trouble. If your attacks come, for instance, in the late spring or summer months and last till the first frosts, he will suspect that your trouble is due to some pollen, that you may have some form of "hay fever."

In other forms of allergy, it is not so easy to track down the offending substance. If your case is not clear-cut, your doctor must consider hundreds of possibilities.

A few grains of mustard can make some people violently ill. A man can be sensitive to his wife's face powder, or to dog hair, or grass pollen, or to the cattle hair in the mat under a rug.

Simple skin tests are often used to reveal the offending substance. Drops of various extracts—of pollen, foods, and other substances—are injected into the skin or put on skin scratches. If you are sensitive to the substance being tested, a swelling will usually develop within a few minutes.

Once a doctor has found what causes the allergic reaction—by means of the history of the case supplemented by skin tests—he will prescribe treatment according to the nature of the patient's sensitivities.

If the patient is allergic to a particular food, the easiest solution is to avoid the food. If his sensitivity is to feathers, the substitution of a fibre pillow for a feather one may bring surprisingly effective relief.

If the allergen is house dust or pollen, or something else that cannot be easily avoided, a series of inoculations may be suggested.

Some people, however, do not respond to this type of treatment, or are sensitive to too many different things to make inoculations a practical procedure. New chemical drugs—developed to control allergic reactions in certain types of allergy—are showing promise. They are to be used, of course, only under the direction of a physician.

See your doctor. If you suffer from recurring and unexplained attacks of sneezing, skin rashes, or asthma, see your doctor. In allergy, as in other medical problems, your physician can give you more help today than ever before.

Makers of medicines prescribed by physicians

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MODERATE DRINKING

(Continued from p. xx)

that moderate drinkers live as long as do total abstainers. On the other hand, heavy or so-called exhessive drinkers shorten their life span, evidently through the action of alcohol. As regards the immediate and temporary action of alcohol (the degree of inebriety) there are considerable individual variations in tolerance. But it is not yet known whether persons having low tolerance suffer chronic injury more readily. All that can be said at present is that to the average normal adult possible chronic injuries from the amounts of alcohol mentioned have not yet been proved or clearly separated from hereditary factors in the organ potentials, from the inevitable effects of disease, from accidents, from the strain of living and from the aging processes."

Another Journal consultant, reviewing the effects of the moderate use of alcohol, states: "One of the best sources of data concerning the effects of the moderate use of alcohol is that offered by the statistical studies made in the Medico-Actuarial Mortality Investigation, carried out by a Joint Committee of the Actuarial Society of America and the Association of Life Insurance Directors. The published reports in 1914 and again in 1929 consisted in a study o fover 2,000,000 policies. In this investigation the term 'moderate drinker' was applied to persons who took an average o ftwo glasses of beer or one glass of whisky or their equivalent daily. Of this group the better class of risks, those who were accepted at the standard rates of premium, indicated a mortality of 15 per cent higher than the average of all insured lives treated as standard risks, i. e. a relative mortality of 115 per cent. It is pointed out, however that, while the habits were recorded at the time of application, the higher mortality than usual may be due largely to a proportion of the applicants becoming immoderate drinkers at a later date. The death rate in this group was higher than the normal from cirrhosis of the liver, cerebral hemorrhage and pneumonia.

"By comparison, whereas some members of the 'moderate drinker' group were allowed policies at the normal rates of premium, another group, which consisted of those who drank to excess not oftener than three times a year but whose bouts lasted two or three days at a time, were considered as distinctly hazardous risks, with a relative mortality of 331 per cent."

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The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, September, 1947 No. 9

EDITORIAL

A LESSON IN FREE MEDICAL CARE

Proponents of government-financed medical care on a mass basis will do well to take a page of recent history in Nebraska for careful study. We refer to the provision for medical care to Assistance clients passed by the special emergency session of the Unicameral legislature in August 1946. According to this Act these clients, in addition to their regular allotments, were given cash benefits for unlimited medical, hospital and dental care by a doctor of their choice. It took less than six months for the senators to realize that the program, if continued as the Act provided, would soon wreck the whole system of relief. As an added dilemma, the two medical college dispensaries in Omaha were threatened with closure for lack of clinical teaching material.

The proportion of Assistance clients to the population as a whole, particularly during these prosperous times, is extremely small. Even so the program had to be discontinued because it was considered economically burdensome. What would happen if this program were in operation during normal times, or during a depression is not difficult to imagine. Some of the advocates of this unlimited expenditure attributed the backbreaking costs to padding of bills by the doctors. This is obviously pure nonsense. There may have been an isolated case here and there in which the accusation would apply, but in a general way this is an extremely poor explanation for its failure.

We suspect that the real reason for the necessary abandonment of the program may be found in the natural desire of most human beings to get something for nothing. While most Assistance clients undoubtedly used judgment in their application for medical care, many of them probably demanded service which was of questionable need.

This experience is not submitted as the final argument against Government medicine. However, we think it pertinent as an illustration of the impracticability of throwing the gates wide open in a system of "free" medical care.

ATTENTION, VETERANS OF WORLD WAR II

In the May 1947 issue of this Journal we suggested publishing a special issue dedicated to those Nebraska physicians who served in the Armed Forces of the United States during World War II. This number is now under preparation, and barring unforeseen delays, we expect to devote the entire December number to this purpose.

Physicians now practicing in Nebraska who served in the armed forces during World War II are earnestly requested to fill out the questionnaire on page opposite 342 and return it promptly to the editorial office of the Nebraska State Medical Journal, Mezzanine 3, Medical Arts Bldg., Omaha 2. The project involves much labor and expense. We therefore appeal to every veteran to cooperate to the fullest extent. We cannot enter into personal communication in this matter for we have neither the time nor the necessary help to do so.

The deadline for forwarding the questionnaire, together with a glossy photograph, is October 1. Inasmuch as we cannot guarantee return of these photographs we request that you send a snapshot of yourself, preferably in uniform. Be sure and print your name and address on the back.

AVERAGE LENGTH OF LIFE SINCE 1847 INCREASED FROM 40 TO 67

"In 1847 the average length of life of our people was about 40 years; in 1947, this has increased to almost 67 years. Such an accomplishment may be regarded as one of the major attainments of modern science," according to Edward L. Bortz, M.D., President of the American Medical Association.

Writing in the current issue of Hygeia, health magazine of the American Medical Association, Dr. Bortz points out that "medical science in the last 25 years has discovered remarkably effective weapons for the control of infectious diseases. Important new information with reference to nutrition, disorders of the glands, the control of diabetes and obesity, and our knowledge of various nervous and mental disorders have made the doctor a more effective public servant than in any previous time in the history of humanity.

"We are indeed a more healthy people today. We are living longer. The mature and productive years are increased in number, and the ravages of old age may be delayed if the public will cooperate with the medical profession in utilizing available information for the control of the diseases which are the common lot of all people."

Continuing, the article states in part:

"Probably no other group has a keener sense of social responsibility than has the medical profession. . . . More and more attention is given to the preventive aspects of the disease. This includes an appreciation of nutritional requirements of the body, plus a number of other important necessities, such as rest, recreation and healthy mental outlook. These factors represent some of the principal interests of the modern doctor.

"Organized medicine has always been a strenuous exponent of the highest type of medical service for all people, regardless of financial status. The unsolved questions of an economic nature are being approached with the same sense of scientific objectivity, free from emotional heat, as science utilizes in its laboratories and clinics.

"To facilitate international exchange of health information, the control of disease, and medical research, a world medical association is now in process of formation. American doctors are deeply interested in this worthy project. Recently two distinguished members of the Board of Trustees of the American Medical Association flew to London to attend an organizational meeting with representatives of other lands.

"As international bonds are strengthened in the fields of science, medicine, the arts, and culture, a better understanding will be brought about for people of the various nations of the world. As leaders in the medical realm communicate with one another across international boundaries, they bring to their own people the benefits of research and investigations in the fields of medical science which will improve the health of various populations. When folks understand each other and contribute to the welfare and happiness of members of the family of nations, the irritations and misunderstanding that cause so much unhappiness should be more susceptible of compromise.

"Doctors are vitally interested in the broader problems of national security and international stability. The American Medical Association is vigorously engaged in promoting the disseminaton of information that will improve the health of the people of all nations.

"American medicine is blazing new trails; it is moving in forward directions to a day of better understanding and finer health for people near and far. The leaders of medicine in the United States, supported by a superb staff of highly qualified colleagues and experts in the various special fields of administration, health education, medical economics, legislation and research, are throwing all their energy into the search for more adequate control of the disorders that destroy health and shorten life.

"The American people can rest assured that the doctors of the nation will continue to find new methods for the control of disease, improved measures for the public health, and an enlarged scope for the enjoyment of human existence. To these high aims the American Medical Association dedicates its interests and support."

DR. ALEXANDER TO CONDUCT PSYCHOSOMATIC CLINIC

Dr. Franz Alexander, Director of the Chicago Psycho-Analytic Institute and an internationally known authority, will be in Omaha on September 15. He will conduct the first of a series of conferences made possible by the Institute of Psychosomatic Medicine which has been established at the College of Medicine, University of Nebraska, through the generosity of anonymous givers. The purpose of the Institute is to interpret to physicians, medical students, and social workers mechanisms concerned in the production of body changes.

The Institute has been favored in securing Dr. Franz Alexander who will discuss in dynamic and interpretive fashion the symptoms of a case presented at the afternoon Conference and he will give background material of factors that go toward the production of body disturbances. In the evening a lecture of general interest will be given.

Dr. Alexander is Professor of Psychiatry at the University of Illinois. He is the author of numerous articles and books dealing with psychosomatic medicine, and is a pioneer in the field of psychosomatic medicine in this country. His conferences and lectures throughout the country have been well attended, and the medical profession of this state is most fortunate in having this opportunity of hearing Dr. Alexander.

Members of the Nebraska State Medical association are invited to attend.

The American Medical Association, through its Bureau of Legal Medicine and Legislation, maintains an active interest in the enactment of medical licensure laws to safeguard the public against unqualified practitioners of the healing art.

The Council on Medical Education and Hospitals of the American Medical Association approved 6,280 hospitals containing 1,468,714 beds and 84,145 bassinets during 1947. Approximately 15,153,452 patients were admitted to these hospitals during 1946,

Record of Military Service

(Please type or print)

1. Name
2. Address
3. Born in Date
4. Graduated from Date

Internships Year

Residencies Year

Post graduate training prior to enlistment Year

5. Date of enlistment Rank
6. First assignment
7. Subsequent major assignments
8. Theatres of operations (locale)
9. Citations, Decorations
10. Discharged on 194

With rank of

11. Graduate training after discharge
12. Re-entered practice on 194 in

The Painful Hip of Adults: Prevention and Treatment*

RALPH K. GHORMLEY, M.D.,
Section on Orthopedic Surgery, Mayo Clinic,
Rochester, Minnesota

The title of this paper suggests that painful hips in adult persons can be prevented. Actually, the more I see such patients the more certain I feel that much can be done to prevent the severe disabling painful hips of adult life, provided that early causative conditions are recognized and adequately treated.

GENERAL CONSIDERATIONS

We must all recognize the fact that the structure of the human hip is such that any deformity of either the head or the acetabulum will produce mechanical stresses and strains that are sure to cause abnormal wear and tear, with resulting fibrillation of the articular cartilage and ultimate painful arthritis of the hip. In the same way, slight irregularities of the surface of the joint which may be the results of localized damage to the cartilage will, in time, by the same process of attrition, lead to damage extensive enough to produce painful arthritis of the adult hip.

These processes are slow, exceedingly slow, as we have noted in many instances. For example, Legg-Calvé-Perthes disease which occurs at about the age of six or seven years may produce mild symptoms over a period of one year to two years and then become apparently quiescent over a period of twenty years or more. In midadult life symptoms again begin to appear, this time gradually to become more persistent, in the end leading to permanently painful osteo-arthritis of the hip. During the interval between childhood and adult life the surface of the joint was slowly but surely undergoing a degenerative change, with the cartilage at first fibrillating, then degenerating and disappearing from the femoral head. Marginal osteophytes appeared, the bone, where it was denuded of cartilage, became enburnated and greatly thickened, and a vicious cycle was established, with more wear and tear and more of nature's attempt to repair resulting in piling-up of abnormal bone to increase the cycle of destruction of joint motion.

Another factor in the apparent slow onset of the late symptomatic stage is the fact that a considerable degree of limitation of motion of the hip may be present without any obvious discomfort to the patient. Smaller ranges of limitation of motion often are overlooked, and not until pain and spasm are present is the condition brought to the patient's attention. A person can sit, walk or stand without moving the hip through a great range of motion. Some patients may notice limitation of motion, but unless there is pain, such limitation is not regarded seriously.

The conditions listed in table 1 at times may be the remote underlying causes of painful hips in adult persons.

Although the effects of each of these conditions may vary greatly from case to case, all may, at times, damage the surfaces and contours of the joint so that after prolonged wear and tear on these altered surfaces the joint may become the site of osteo-arthritis. Each condition must be considered separately in order to emphasize the importance of preventive measures. The treatment of the late resulting osteo-arthritis will be discussed at the end of the paper for, in a general way, the late results of all these conditions are the same.

CONGENITAL CONDITIONS OF THE HIP

Congenital dysplasia of the hip. This condition now is recognized by most orthopedic surgeons as maldevelopment of the acetabulum. According to Hart, it is an inherited physiologic alteration of the hip joint called "flat socket." Badgley wrote that "Dysplasia of the hip is the result of a failure of normal rotation of the limb bud, by either intrinsic or extrinsic factors, with a resultant flattening of the socket and anteversion of the head and neck, which may produce an anterior displacement of the femoral head."

Badgley gave Putti credit for stimulating interest in the concept of the problem of congenital dislocations and subluxations of the hip.

It is not my purpose to deal herein with the various theories of the etiology of this condition. It is usually recognized in late adolescence or early adult life. The symptoms may be minimal or in some instances absent, and may be discovered in roentgenograms made to detect some other condition. The essential finding is a shallow acetabulum with the head of the femur not well covered by the acetabulum or, as often stated, there is an abnormally steep or short acetabular roof(9).

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*Read before the meeting of the Omaha Mid-West Clinical Society, Omaha, Nebraska, October 30, 1946.

Usually, the patients present no symptoms until well into adult life, when vague pain or slight instability will be noted. Occasionally there may be a limp. Often, on examination, very little information of value is gained. At times there may be some degree of limitation of rotation of the affected hip. The diagnosis is made on the basis of the roentgenographic changes.

The important thing is to be able to recognize the condition and to treat it properly—not in the light of symptoms produced early in life but in view of the almost certain severe late symptoms which will be noted when traumatic arthritis becomes well established as a result of the abnormal relationship between the articular surfaces of the head of the femur and the acetabulum.

Treatment of the patients is divided into two categories. The first is early recognition of this condition in infants when, according to Putti, it can be recognized; it should be followed by treatment along lines set down by Putti. According to Putti, in a large percentage of these cases normal development of the hip will take place after treatment, and the subsequent symptoms may be prevented. The second category applies to patients who reach early adult life before the condition is diagnosed; in this event treatment along surgical lines is indicated. At the Mayo Clinic our experience has led us to believe that it is important to perform a shelf operation in these cases, thus producing relative deepening of the acetabulum and a more adequate roof over the femoral head. Although there is not sufficient statistical evidence to prove the real value of this procedure, our opinion on the basis of observations made in a fair number of cases is that it may minimize or completely obviate the very troublesome painful hips which otherwise would develop late in life.

Congenital dislocation of the hip, treated or untreated. Congenital dislocations of the hip, treated or untreated, may become painful hips in late adult life. By "treated" I mean dislocated hips in which reduction has been performed but in which, as years pass, changes in the normal relationship of the joint contours have led to a traumatic type of arthritis with resulting pain. Such abnormal relationships may be due to incomplete reduction, partial subluxation, damages to the surfaces of the head and acetabulum at the time of reduction, and flattening of the femoral head which may be found to occur in a certain number of cases in which apparently satisfactory reduction had been carried out, early in life. In table 2 results of a careful follow-up study by Severin, involving 454 treated congentially dislocated hips, are shown.

All of the patients involved in table 2 apparently had undergone primarily successful reduction of the dislocated hips and were submitted to reexamination five to twenty-seven years after the treatment.

It is not possible to say how many of these hips may become painful later in life, but it is safe to presume that pain of some degree will develop in a rather large percentage, and that in a number of them the condition will be disabling.

The untreated congenital dislocation of the hip may not be painful early, but as time goes on and the patients become older, most will have moderate to severe pain in the region of the hip, and in many severe backache will develop because of the extreme lordosis produced.

The treatment of these patients is complicated. Each constitutes a problem in himself. Those who have a residual dysplasia or subluxation can be benefitted by the shelving operations as noted in group one. Those who have posterior dislocation will be benefitted by anterior reposition of the femoral head where this is possible. In cases in which reduction cannot be accomplished or improvement in the weight-bearing line of the hip cannot be gained, the patients should be advised to keep their weight down. Maximal muscle tone should be maintained by exercises, and a supporting corset worn to with marginal hypertrophic changes. As minimize the backache.

Preventing painful hips. It is hoped that better methods of reduction of congenital dislocations of the hip will lead to better results and less damage to the contours of the joint. It is agreed that earlier reductions lead to better results. The importance of gentle manipulative procedures always should be stressed. In children much of the femoral head is cartilaginous, and this cartilaginous material may be damaged easily by the violent manipulative procedures practiced by the last generation of orthopedic surgeons, particularly those who followed the Lorenz method. It is felt by a large number of surgeons in this country that better results can be obtained by open reduction with careful replacement of the head into the acetabulum after the acetabulum has been freed of the soft tissues which prevent adequate reduction of the head.

Congenital coxa vara. This condition is found relatively infrequently and is of little importance as a cause of painful hips in adults. When it is present, improvement in the proper relationship of the surfaces of the joint can be gained by osteotomy designed to change the alignment of the neck and shaft.

SEPTIC ARTHRITIS OF INFANCY OR EARLY CHILDHOOD

It is well recognized that infection of joints by any of the pyogenic bacteria causes rapid disintegration of the articular cartilage, and that in many instances it leads to complete destruction of the cartilage with resulting ankylosis. At times, however, the disease may become arrested short of complete destruction of the surfaces of the joint. The cartilaginous surface is left in a varying state of partial destruction. With resumption of movement of the joint, there may be no symptoms for a time, but as the child reaches adolescence some pains occasionally will be noted and a roentgenogram will reveal definite changes in the contour of the joint, with marginal hypertrophic changes. As adult life is reached, symptoms from such a joint will become more pronounced and in late adult life such hips usually will become very disabling. In some instances in which the original damage was more severe, the severely disabling state may be reached earlier in life.

Preventing painful hips. It is to be expected that with the improvement in the control of infections through chemotherapy, this type of damage to a hip joint will be minimized. In instances in which there is slight residual damage to the joint, a long period of minimal weight-bearing should obtain, for it is certainly true that early active weight-bearing on these joints produces changes in the contour of the surfaces of the joint which will lead to a painful hip later on in life.

LEGG-CALVE′-PERTHES DISEASE

Legg-Calve′-Perthes disease is a disturbance in the development of the capital femoral epiphysis. The disease appears in children from five to eight years of age; the epiphysis gradually becomes irregularly fragmented in appearance. After some months, re-ossification takes place, leaving the head of the femur in a more or less irregularly deformed shape. Most of the patients will then proceed from childhood into middle adult life without any symptoms whatever, only to begin to experience painful hip symptoms at about the age of forty that may lead to severely disabling hips in later life.

In the prevention or minimizing of the changes in this condition, it is most important that the disease be recognized early. Accurate diagnosis often is difficult, for in the early stages the symptoms frequently are mild and may be overlooked. It should be emphasized, however, that any child in the age group of five to seven years who limps or complains of pain in the region of the hip or thigh should be carefully examined and re-examined, if necessary, to detect or rule out the presence of this condition.

According to Gill, the very early change is early necrosis in the metaphysis of the neck of the femur. The next feature is degeneration of the head; according to Gill, "The first area of necrosis in the head directly overlies the first area of necrosis in the metaphysis." Again according to Gill, "It is difficult to escape the conclusion that the degeneration of the head is the result of the necrosis in the neck." He believed that the degenerative phase averages a year and a half. The regenerative phase requires two to three years for its completion. Eighty-five per cent of the patients are boys.

Once the diagnosis has been established, it is of the utmost importance that weight-bearing be minimized or completely eliminated, so that maximal restoration of the femoral head can be gained. Danforth reported on a group of patients who had obtained excellent restoration of the contours of the femoral head, some of whom were treated by rest in bed and some by application of an ambulatory traction splint with a high sole on the opposite shoe, and the use of crutches to prevent weight-bearing. Although complete rest in bed over a period of two to four years is a very formidable program to prescribe for an otherwise apparently normal child, there is little doubt that it offers the most certain hope of normal restoration of the hip contours. The prolonged use of crutches or a splint with a high sole on the normal foot is less difficult, and should be insisted on if the first method seems out of question. By this means nearly normal restoration of the femoral head will be obtained. Gill likewise has emphasized the importance of this type of treatment.

After the completion of this phase of treatment, we believe it is important to emphasize to the patient that violent sports and strenuous exercises which might throw an undue strain on the hip should be avoided. We believe that much traumatic change can be prevented by observance of such rules.

SLIPPED CAPITAL FEMORAL EPIPHYSIS

This condition is as important as Legg-Calve′-Perthes disease as a cause of late painful changes in adult hips. Epiphyseal separation or epiphysiolysis is a condition seen in early adolescent life among both boys and girls. Various explanations of its causation have been given; they range from infection or simple trauma to disturbance of the glands of internal secretion. I do not believe the etiology has been proved. To me it seems more likely that trauma is the cause of the condition; indeed, I wonder why the condition is not seen more often when one considers the rather precarious perch that the epiphysis occupies, with a wide band of the epiphyseal cartilage and a very small amount of bony support during the more active phase of the child's growth.

The onset of this condition often is insidious. It is usally seen when the child is between the ages of eleven and fourteen years. The child may complain of mild transient pain in the hip, thigh or knee, or a slight limp may be noticeable. Examination will reveal very little except some limitation of passive internal rotation with the hip at 90 degrees' flexion and the knee flexed. When the condition is more advanced, marked internal rotation, shortening of the leg, and at times, a marked degree of spasm and pain, are found. In cases in which extreme displacement has suddenly taken place, these symptoms reach a maximum.

Roentgenographic examination in the early stages of this condition will reveal a slight change in the appearance of the epiphyseal line, usually manifested by a little widening, with some increase in density. Roentgenograms show displacement of slight degree which usually can be detected only when carefully made lateral roentgenograms of each hip are compared. It is at this stage that the condition should be recognized, and if it is properly treated, the amount of deformity of the head and neck will be minimal. Prevention or further slipping can be accomplished by internal fixation, or, in some cases, by the application of an ischium-bearing splint to prevent weight-bearing on the vulnerable epiphyseal line. If the condition is neglected or allowed to progress until the maximal degree of slipping has taken place, one of the most severe deformities of the femoral head will be produced. In many cases, painful hips in adult persons are due to untreated, poorly treated or unrecognized slipping femoral epiphyses in adolescence.

In cases in which severe displacement of the epiphysis has taken place, efforts should be made to replace the epiphysis as accurately as possible. It is possible, in some cases of acute slipping, to replace the epiphysis by manipulation. In those instances in which the epiphysis has become fixed in its abnormal position, operation with replacement of the epiphysis, or osteotomy through the neck of the femur to correct the position of the epiphysis, should be performed.

As in the case of patients with congenital dislocation of the hips, it is important to handle these patients with the utmost gentleness. Whether operative procedures are carried out by manipulation or open operation, the utmost care should be exerted to prevent damage to the articular surfaces and to the epiphyseal line. Some surgeons have advocated treatment of these patients without replacement of the epiphyses, because of the apparently unsatisfactory immediate results of such replacement. It is true that the immediate results are important, but in my opinion the late results are even more important. Although the immediate results without treatment may be a painless hip with fair function, I believe that the late results of treatment without replacement of the epiphysis are certain to be more troublesome.

Again, in cases in which any deformity of the head of the femoro-acetabular relationship exists, the patient should be advised to avoid strenuous sports and undue strain.

INJURIES, WITHOUT FRACTURE, TO THE ARTICULAR SURFACE

There are cases of injury to the hip joint in which roentgenograms show no evidence of fracture, but in which severe and painful symptoms indicate considerable damage to the articular surface with actual change in the articular cartilage. It is probable that in some of these cases there may be unrecognized fractures of the bone adjacent to the articular surfaces. In such cases, definite traumatic arthritis is set up. If the possibility of this is realized and the patient is not permitted full weight-bearing for several months, the damaged articular surface will have time to heal more completely and there will be less chance of the development of severe traumatic arthritis, which woud lead to a permanently painful hip in late adult life.

FRACTURES OF THE ACETABULUM AND FEMORAL HEAD

Fractures of the acetabulum and femoral head which are recognized should be treated with the same possibility in mind as that mentioned in the preceding paragraph. When severe displacement of the fragments is found, every effort should be made to restore them to normal position. This is at times very difficult or almost impossible. When the maximal amount of reduction is obtained, the patient should be prevented from full weight-bearing until healing is complete. In spite of this, there is often an irregularity of the surface of the joint which will lead to marked traumatic arthritic changes. In cases of this sort it is very important to limit the patient's activities in order to minimize the irritation of the surface of the joint and to delay development of the traumatic arthritis as long as possible.

ASEPTIC NECROSIS OF THE FEMORAL HEAD

This condition occurs as a complication after fractures of the head and neck of the femur and after traumatic dislocation. Axhausen first described and named this condition, but Phemister should be given credit for having brought the condition to the attention of readers of American orthopedic literature. The condition is certainly seen more often as a complication of fracture or traumatic dislocation, but it may occur as a complication of congenital dislocation of the hip after reduction, and may be seen, likewise, as a complication after reduction of a displaced capital femoral epiphysis. There is little, if any, difference between aseptic necrosis and osteochondritis dissecans, a condition which may affect the femoral head at times without obvious preceding trauma as an inciting factor.

In all of these cases necrosis of a portion of the articular surface of the femoral head takes place. This may be followed by separation of the fragment or by partial revitalization, but in either event an irregular restoration of the surface of the joint takes place. In time, marked irregularities in the articular surface develop, and traumatic arthritis is set up, leading to a painful hip in later life.

How to prevent this condition is a problem that is far from solved. Some feel that the prevention of weight-bearing for a long time after fixation of fractures of the femoral neck will lessen the incidence of this condition. This may be true, and it may be worth while to prevent weight-bearing after traumatic dislocations for the same reason. Such treatment may help to minimize the incidence of the condition after reductions of congenital dislocations of the hip. Weight-bearing, however, cannot be a factor in the development of spontaneous osteochondritis dissecans.

Whatever the cause of the condition, I feel that the patients must be watched with the utmost care over a period of many months, so that it can be certain that healing has taken place before resumption of normal activity is allowed.

SYNOVIAL OSTEOCHONDROMATOSIS

This comparatively rare condition occasionally is found in hip joints. The condition is characterized by the formation of multiple osteocartilaginous loose bodies in the joint at the synoviochondral junction and represents a benign type of chondromatous change. In time these loose bodies, by repeated catching in the joint, lead to marked changes in the surfaces of the joint and traumatic arthritis develops, so that a painful hip may develop in adult life.

To a certain extent, prevention can be accomplished by early recognition of the presence of the osteochondromatosis and removal of the loose bodies and as much of the osteochondromatous synovial membrane as can be reached surgically. It is often impossible completely to eradicate this condition, which means that some residual difficulty may be expected.

OSTEOCHONDRITIS DISSECANS

The essential points in the recognition and treatment of this condition have been discussed herein under the heading "Aseptic necrosis of the femoral head."

OTTO PELVIS OR INTRAPELVIC PROTRUSION OF THE ACETABULUM

This condition is characterized by a variable degree of deepening of the acetabulum with actual bulging of the roof of the acetabulum into the pelvis. According to Pomeranz, the condition was first described by Otto in 1824. It has been referred to on numerous occasions in the literature and various theories as to its etiology have been given. According to Pomeranz, there are two types: "(1). an acute type probably infectious in origin; (2). a chronic type occurring in the course of any disease, resulting in an osteomalacia of the hip joint."

Whatever the etiology, from our standpoint there is developed an abnormal relationship between the head of the femur and the acetabulum which in time, because of fautly mechanics of the hip joint, will lead to traumatic arthritis and thus to a painful hip later in adult life.

Since the etiologic factors of the primary condition are not known, prevention probably is not possible. Recognition of milder forms of the condition usually comes about only as an incidental finding when roentgenograms of the hip are made. When the condition is more severe, definite limitation of the range of motion of the affected hip or hips can be detected. In all cases in which the disease is more severe and in many in which it is milder, painful hips develop later in life.

Again, about the only treatment in early stages of the disease is warning to the patient to avoid the more strenuous sports and activities which force the extremes of motion of the hips. I have seen an occasional patient improve after acetabuloplasty, but the results are by no means certain. To use the procedure hardly seems worth while.

OLD BURNED-OUT ARTHRITIS

In this category would be placed a group of conditions which, in my experience, is rather small. None the less, they may occur. The surgeon occasionally sees patients who have multiple involvement of joints by arthritis of the rheumatoid type. The arthritic process has become arrested, but because of the damage to the surface of the hip joint a traumatic type of hypertrophic change is superimposed. As time goes on the change becomes more marked.

Prevention of this condition seems remotely possible. It should be possible to minimize the activity of the patient and thus prevent some of the superimposed damage. The important thing is to recognize the fact that such hips are damaged and not likely to withstand normal activity, and particularly excessive activity.

TREATMENT

Conservative treatment. Thus far in this paper emphasis has been placed on prevention of the painful hips of adult persons when they are due to disturbances in the mechanics of the joint arising from some pre-existing disease or injury. The problem of treatment, once the condition is established, resolves itself into a choice between conservative management and operative treatment.

The selection of a conservative program depends on the patient's occupation, his willingness to accept a less active existence, his ability to co-operate in such a program and, to a certain extent, his economic status. Many of these patients can lead a fairly comfortable existence if they can limit their activity sharply, even to the extent of using crutches or at least a cane. Reduction in weight, if it is necessary, is an important adjunct to treatment, since all overweight patients will be in better condition if they carry less weight. Physiotherapy such as baking and massage and diathermy are of value in relieving pain, increasing circulation and making the patient more comfortable. Such measures are, however, of only temporary value.

Operative treatment. To warrant operative treatment, the patient should be having difficulty that is serious enough to be disabling for part or all of the time. He should be in good general physical condition with, of course, a reasonable life expectancy.

The choice of operative procedures rests among arthrodesis, arthroplasty, acetabuloplasty, drilling operations and osteotomy. The latter three operations seem to the writer less likely to produce a satisfactory result than either of the first two procedures mentioned. In my experience, the more of these hips on which I have operated, the more I have been impressed with the fact that from the appearance of the joint surfaces, scarcely any improvement from conservative types of treatment could be expected. The marked irregularity of the joint surfaces, with complete erosion of the cartilage, leaves little for nature to work on to accomplish any sort of repair.

The most certain relief from pain will, of course, be gained from successful arthrodesis. If relief of pain is the main object of the operative procedure, this particular procedure should be advised. However, many patients will not accept the prospect of a stiff hip, choosing to gamble on the less certain results of arthroplasty. In cases in which arthritis of the lumbar part of the spinal column or opposite hip also is present, arthrodesis seems to me not to be indicated, because added strain is bound to be thrown on the vulnerable joints after this operation. However, for a man or woman who has to depend on hard work for a livelihood, and if that work requires much walking or standing or physical effort, arthrodesis should be advised. When a deformity exists, it can be corrected, if necessary, by osteotomy in addition to arthrodesis.

Vitallium cup arthroplasty has, in our hands, proved to be a satisfactory means of treatment of many patients who are willing to accept some limitation of their activities and willing to gamble a bit on the chance of relief of pain. Many of these patients obtain satisfactory relief of pain, at the same time improving the range of movement and correcting the deformity, if present.

My experience with acetabuloplasty has been, on the whole, disappointing. In certain cases of Otto pelvis it may serve a useful purpose, but in most instances the results will be disappointing.

A decade ago the operation of hip drilling or "forage" came into vogue as a means of treatment of hypertrophic arthritis of the hip. Drilling through the trochanteric area into the head of the femur is presumed to increase the vascularity of the head. Again, this procedure in my hands has been disappointing, with only a small percentage of patients showing any permanent benefit.

Osteotomy, both trochanteric and subtrochanteric, has been advocated from time to time as a procedure to be used in these cases. Although there is no doubt that in some cases temporary benefit can be obtained by such a procedure, in our opinion the benefit cannot be permanent because the irregularity of the articular surfaces remains, and symptoms are sure to recur at a later date.

SUMMARY

The facts concerning a number of underlying conditions which may lead to painful hips of adult persons have been reviewed. Attention has been called to the fact that in many of these conditions changes in the hip can be minimized by early and correct diagnosis and adequate treatment, so that painful conditions of the hip in adult life will be lessened or prevented.

TABLE 1

AFFECTIONS OF THE HIP PREDISPOSING TO PAINFUL HIP IN ADULT LIFE

1. Congenital dysplasia of the hip.
2. Congenital dislocation of the hip, treated or untreated.
3. Congenital coxa vara.
4. Septic arthritis of infancy or early childhood leading to damage to the joint surface but not to ankylosis.
5. Legg-Calve'-Perthes disease.
6. Slipped capital epiphysis of the femur.
7. Injuries to the articular surface without fracture.
8. Fractures of the acetabulum and head of the femur.
9. Aseptic necrosis of the femoral head.
10. Osteochondromatosis of the synovial membrane.
11. Osteochondritis dissecans.
12. Otto pelvis.
13. "Burned-out" arthritis of rheumatoid type.

TABLE 2

ROENTGENOLOGIC - ANATOMIC CONDITION: 454 CASES OF CONGENITALLY DISLOCATED HIPS AFTER TREATMENT*

	Per cent
Well-developed hips roentgenologically	4.24
Moderate deformities of femoral head, neck or of the acetabulum, but otherwise normal joint	7.14
Dysplasia, not subluxation	8.04
Subluxation	43.75
Femoral head in a secondary acetabulum in the upper part of the original one	12.95
Recurrent dislocation	16.96
Patients dead	5.58
Patients not re-examined	1.34

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*Adapted from: Severin, Erik: Contribution to the knowledge of congenital dislocation of the hip joint; late results of closed reduction and arthrographic studies of recent cases. Acta chir. Scandinav. (Suppl.) 63:13-142, 1941.

(References in Reprints)

Thrombophlebitis and Pulmonary Embolism The Responsibility of the Surgeon and the Hospital Staff

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The zenith of non-invited and dreaded drama in the field of surgery or medicine is reached when a patient making an uneventful convalescence from a relatively minor or major operation, or recovery from a medical disease, suddenly complains of severe chest pain, develops dyspnea, and cyanosis, and perhaps expectorates a bloody sputum, thus establishing the diagnosis of pulmonary embolism or infarct. The patient gasps for breath and his expression is one of anxiety. This entire scene may be enacted before other patients in a ward, or in a private room it may be enacted before friends and relatives, or the nurse may step into the quietness of the room and find the patient alone in the finale of life. Frustration and helplessness, rather than excitement, describe the scene. In my experience, a student nurse has usually been the first attendant to see the catastrophe, and no doubt a recording of her emotional reaction and thoughts would prove most interesting. The body is removed from the ward or room, a dejected personnel carries on their duties, and faces mirror the bewilderment occasioned by the sudden and permanent departure of a patient who was apparently convalescing satisfactorily.

The incidence of pulmonary embolism and most frequent forerunner, thrombosis of veins of the lower extremities, is about the same for medical and surgical patients. Hunter and his collaborators at the University of Oregon have carefully analyzed several series of autopsies. In the last series of 200 cases, 37.7% of the medical cases autopsied and 58.6% of the surgical cases showed phlebothrombosis. Eleven deaths in this series were from pulmonary embolism; 5 were from the medical service and 6 from the surgical service. This is a mortality rate of 5.5% from pulmonary embolism in a series of 200 cases. McCartney of the University of Minnesota reported that in 25,771 autopsies it was believed that pulmonary embolism was the cause of death in 216 cases, or 5.3%.

The treatment of pulmonary embolism is the prophylaxis of venous thrombosis, and particularly of the veins of the feet and leg below the knee. At present, we have no method of prophylaxis which is specific and not fraught with some danger. However, the incidence of venous thrombosis, and particularly fatal pulmonary embolism, may be materially reduced under the following conditions:

1. Surgeons, physicians and nurses must appreciate that placing any patient in bed at complete rest is an important provocation in development of venous thrombosis and pulmonary embolism.

2. Unless contraindicated because of the condition for which the patient was placed in bed, methods of discouraging venous thrombosis must be instituted.

3. Physicians and surgeons must be cognizant of all methods now available and advocated in the prevention, diagnosis and treatment of early venous thrombosis of the lower extremities.

4. Surgeons and physicians must urge hospitals to keep immediately available all drugs and equipment which are necessary to meet the emergency of thrombosis and embolism.

5. Proper enlightenment of the interne and resident staff regarding the prophylaxis and treatment of this complication must be emphasized.

The prophylaxis of intravenous clotting consists of some rather simple measures, but shortage of nurse personnel makes carrying out the instructions difficult.

The following management of postoperative cases or bedridden cases is emphasized.

1. The foot of the bed should be elevated when a patient is unconscious, such as on returning from the operating room, or when a patient is unable to move and exercise the lower extremities, except when contraindicated. This permits more adequate venous drainage of leg veins.

2. The patient should be urged to exercise his feet and legs every hour of the day for several minutes.

3. Massage, passive motion, and active exercises of the lower extremities under the direction of a nurse should be carried out three times a day for five minutes.

4. Prevention or relief of abdominal distention by nasogastric suction is important. When not contraindicated, prostigmine is advisable, not only for its assistance in preventing and relieving abdominal distension but also, as advocated by G. de Takats, because it seems to decrease the increased clotting factors.

5. Deep breathing exercises must be encouraged for 3 minutes every 2 hours.

6. Early ambulation is apparently not the answer to the problem of venous thrombosis but there is much to recommend it. Before the patient is able to be out of bed, it is recommended that he sit on the side of the bed and swing his feet 3 or 4 times a day.

There is some controversy as to the proper course to pursue in the event of onset of plebothrombosis as evidenced by foot or leg tenderness, positive Homan's signs, leg swelling or increased temperature or pulse, or when signs of a pulmonary infarct or nonfatal embolism exist, and one or more of the following procedures may be indicated.

1. Single or bilateral ligation of the superficial femoral or common femoral veins is indicated in some cases. Ligation of the common iliac veins or inferior vena cava has also been done. It would seem that ligation is not routinely necessary in every case of venous clotting of deep leg veins but it must be considered.

2. Anticoagulants are indicated and although they do not dissolve the thrombus already formed, the development of additional thrombi may be prevented. Heparin and dicumarol should be available in the hospital drug room. At an early date, heparin in Pitkins Menstruum will be available on the market and from present indications, this should prove a valuable and practical therapeutic measure. When available, it should be kept on supply in the hospital drug room. When anticoagulants are indicated, it is mandatory that therapy be instituted without any loss of time. Valuable time is lost when several hours elapse before treatment is initiated. Heparin is given by the intravenous route for 48 hours and the dicumarol is started by mouth. The latter usually begins to affect the clotting mechanism by the end of 48 hours, and the heparin may then be discontinued.

Heparin may be administered in several ways; 100 mg. diluted with 1000 cc. of normal saline may be given at the rate of 20 drops per minute. This rate requires approximately 12 hours for each 1000 cc. and is continued throughout the 48 hours. A method which is simpler for the patient is to give 50 mg. undiluted doses intravenously every 4 hours. This method does not maintain an even, constant, elevated coagulation time, but its protective value is probably equally efficient.

When Pitkins Menstruum becomes available, the technic will be greatly simplified as 300 mg. may be given into the deep subcutaneous tissue and it has a lasting effect of 48 hours. This may be repeated every 48 hours if patient is unable to take dicumarol by mouth.

Because of lower cost and the fact that it is given by mouth, one should begin dicumarol at the time of the first injection of heparin in order that its effect may come into play by the 48 hour period. On the first day, 300 mg. are given (200 mg. if patient weighs less than 150 pounds); the second day dosage is 200 mg., and on subsequent days approximately 100 mg. doses are given, as governed by prothrombin time.

Anticoagulants must not be prescribed without daily determination of coagulation time. When heparin is being administered the clotting time as determined by the Lee-White modification of the Howell method should be maintained at 25 to 30 minutes. With the administration of dicumarol the prothrombin time must be determined daily before prescribing the amount to be given that day. The prothrombin time should be reduced and maintained at about 20 to 30 per cent of normal. If the prothrombin time reaches 10 per cent of normal, there may be a tendency to bleed. A good practical rule is to omit the dicumarol for a day or two if the prothrombin time is less than 20% or normal. If a hemorrhagic tendency does develop, the anticoagulant therapy should be temporarily discontinued. 50 to 60 mg. of Vitamine K is then given intravenously, followed by a whole blood transfusion.

Anticoagulant therapy should be continued for some days after the patient is ambulatory and the dose should be tapered off.

3. With the onset of thrombophlebitis, (characterized by pain in the groin, swelling, edema and discoloration,) there is only remote danger of the clot propagating and freeing emboli to the pulmonary circulation, but anti-coagulants or femoral vein ligation may be indicated.

4. With severe edema and pain and evidence of vasospasm, lumbar paravertebral block may be indicated.

The size of the pulmonary embolism determines the pathological picture. The smaller emboli reach the smaller vessels of the lung, resulting in infarcts. A larger embolus may cause sudden and complete obstruction of the pulmonary artery or its right and left branches and death usually follows.

Statistics reveal that 8.3% of patients with fatal pulmonary embolism die within ten minutes. Another 33% die within one hour. If the patient can survive this first hour, his chance of eventual recovery is fairly good, provided new emboli are not released or a larger thrombus does not develop at the site of the embolus.

If death from the pulmonary embolus has not been instantaneous, therapeutic measures can be instituted which may ward off a fatality. Adequate and proper treatment requires immediate availability of drugs and equipment and this will not be the case unless definite preparation for such an event has been carefully planned by the surgeon or physician and the course of procedure has been carefully discussed with the internes, residents and nurses. This preparation is usually woefully lacking.

The patient is placed in a semi-Fowler position to help increase the vital capacity and attempt to relieve pulmonary congestion. Oxygen is immediately started by catheter or, preferably, by mask. Immediately give 1/75 grain of atropine and ½ grain of papaverine intravenously, and this may be repeated as often as every 4 hours. Morphine should be avoided, and digitalis and adrenaline may aggravate the condition.

Antigoagulant therapy is started immediately. Heparin intravenously may prevent further release of emboli and prevent thrombus development around or proximal to the embolus. Dicumarol should be started by mouth as soon as possible in order that the heparin may be discontinued about 48 hours after the first dose of dicumarol. Prothrombin or clotting time determinations must be made daily for control of dosage.

Ligation of the superficial or common femoral veins must always be considered in cases where the patient has survived the first embolic episode, and there is evidence that the clot originated in the plantar or calf muscle veins. Experience seems to favor bilateral ligations. Superficial femoral vein ligation may be just as efficient and the complication of edema is not so frequent or so severe. Surgery for removal of the pulmoney embolus has little to offer from analysis of case reports on the Trendelenburg operation. There has been a mortality rate of 93.2% for 132 cases collected up to 1938. Some modifications of this operation have been devised but results have not improved. One wonders how many of the cases in this series might have survived without operative interference.

In a discussion of thrombophlebitis and pulmonary embolism, the management of patients who are to be subjected to surgery and who have a history of previous thrombophlebitis, pulmonary infarcts or embolism must be considered. Coagulation and prothrombin time determinations must be made previous to operation. Anticoagulant therapy is started the day of operation by prescribing a 200 mg. dose of dicumarol by mouth and then 100 mg. is given daily as long as the prothrombin time is 20% or more of normal. In a few cases I have given 100 mg. of dicumarol the day before operation and then continued with 100 mg. daily dose as long as the prothrombin time remained at least 20% of normal. Further studies are now being made on this method of preventing thrombophlebitis, pulmonary infarcts and pulmonary embolism in patients who have a history of previous venous clotting.

In conclusion, the conscious recognition by all physicians, surgeons, internes and residents of the few methods of preventing venous coagulation of the lower extremities and the available methods for the immediate treatment of threatened or existing pulmonary embolism, should result in some decrease in the incidence of this dreaded complication.

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Surgical Management of Dysmenorrhea

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It is not my intention to discuss medical treatments or psychiatric methods but rather to point out that the surgical approach to this problem of dysmenorrhea must be preceeded by a careful evaluation and classification of cases.

Intractable functional uterine pain is a psycho-somatic problem. During the past fifty years uterine displacements, congenital anomalies, follicular cysts, and endocrine deficiencies of various types have been assumed to be etiological factors. If these cases are studied closely one is eventually impressed by the psycho-neurotic side of dysmenorrhea. Many women with a psyconeurotic background use the problem of menstruation as a defense mechanism which results in the symptom complex known as dysmenorrhea. Marriage, divorce, change of environment, and many other factors many times effect a cure.(1)

Good results from sympathectomy have been reported in young women with ovarian endometriosis.(3) I believe it would be inadvisable in the larger number of these cases because of the rapid increase in size and the invasive type of growth.

The group of cases which have acute ante-flexion with resultant back pressure and uterine pain which becomes a great deal worse between the ages of eighteen and twenty-four rarely require sympathectomies. It is during these years that the ante-flexion is increased. Cervical dilatation with the introduction of a stem pessary gives relief in about ninety percent of this group. Cervical dilatation should be two centimeters in diameter. This will produce about the same effect upon the cervix as the dilatation of term delivery. The pessary should be left in about three months.

The uterus is enervated by both sympathetic and para-sympathetic systems. Motor fibers arise between the fourth and sixth dorsal segments of the cord, they travel down to the sympathetics by the white rami communicantes then through the sympathetic plexuses.(4) These motor fibers do not go through the pre-sacral ganglion but follow the course of the large blood vessels and enter the uterus through the broad ligaments.(2)

So far as I know abolition of the pre-sacral ganglion and nerves has no effect upon pregnancy nor the mechanism of labor. Pain in the upper vagina and cervix is in no way affected by this procedure. Spinal anesthesia at the eleventh and twelfth thoracic segments allows uterine contractions without conscious pain.(5)

It is interesting to review the historical background of this procedure. In 1913 Latarjet and Bonnet published the first important data regarding the innervation of the pelvic organs. They named the main nerve branches of the sympathetic system of the pelvis (pre-sacral nerve).(7) Cotte in 1924 was the first to suggest performing neurotomy to relieve pain in diseases of the pelvic organs, such as essential dysmenorrhea and sclerocystic ovary.(8) In an article written in 1925 he gives a case report of a patient operated in 1924 by pre-sacral sympathectomy with complete relief of symptoms.

Elaut, a Belgian, wrote an article on various nerves of the female pelvis in English in 1932 with a bibliography of eighteen references all from French literature.(8)

Wetherell(2) published an article in 1933 which gave very favorable reports with this procedure and developed the first definite interest here in the United States. The paucity of articles in the American literature since that time makes one feel that we are rather slow in accepting this procedure. Very little has been published in either the German or English literature.

Pre-sacral sympathectomy is a method of severing the paths of painful uterine stimuli no matter what their origin may be.(3)

Surgical technique is not difficult. The left ureter should be mobilized as it lies in many cases close to the midline. Hemostasis is of utmost importance. Much has been said as to the anatomical variations which we encounter. In two cases the reflexion of the peritoneal attachment of the sigmoid covered this entire area. Mobilization of the reflexion with retraction to the left is not a difficult problem. Nerve fibers should be followed very carefully and can be frequently followed to the diameter of a number one hundred sewing thread.

The sympathetic nerves come down on either side of the aorta. They usually divide just above the bifurcation of the aorta into a definite intricate net work of nerve fibers rather than individual nerves, hence the word plexus.(5) Rarely one or both may continue into the pelvis as individual nerves. In this group only the left nerve has persisted, and that in three cases.

If we take a triangle, the apex of which is the bifurcation of the aorta and the base being a line connecting the arteries at the upper level of the sacral promentory(4) and carefully denude down to the pre-sacral fascia throughout this entire area it is almost impossible to miss any of the fibers of the plexus. We frequently encounter a small artery in the midline originating in the lumbar portion of the aorta. This should be carefully ligated. Although it is tiny it can produce a rather large retro-peritoneal hemorrhage.

Other pelvic surgery can be accomplished in connection with this operation, such as suspension, appendectomy, plication of ovarian ligaments, etc.

In the comparatively small group of approximately forty of these cases which have been treated by this method results have been uniformly satisfactory. The first cases were operated in 1934. All of these have been followed for one year and some have been followed to date. The oldest case was thirty-nine and the youngest twenty-six with an average age of thirty-two.

Inasmuch as this operation is performed for intractable uterine pain the results are startling, in that they give one hundred per cent relief from that particular symptom. However, accompanying symptoms such as nausea, vomiting, backache, and headache are relieved all or in part in approximately sixty percent of these cases.

A few case histories follow:

The first case was a woman age 34, married 13 years, sterile for no known cause. Menses began at 13, regular 28 days, lasted 4 days, and was somewhat painful. Pain began to increase at 19. A dilatation and curretage was performed when she was 21, dilatation and stem pessary at 29. She had received hormone therapy and had taken twelve to fifteen Emperin compound with codein grains one half during the first thirty-six to forty-eight hours of menstruation. On several occasions morphine had been administered hypodermically. Surgery was entirely successful and she was last seen in 1942 at which time menstruations were painless and she was developing menopausal symptoms.

Miss A age 31, unmarried, stenographer. She had a nervous breakdown at 22 and was hospitalized six weeks. Periods were always painful, much increased after hospitalization. She had been treated medically by several different doctors. She loses two to three days work each month. Because of an acute ante-flexion I did a dilatation and inserted a stem pessary. She had some relief for three months then the same amount of pain. A sympathectomy gave immediate relief and patient does not know when periods start. She was observed for three years.

Miss G, age 33, school teacher, unmarried, period began at 11, regular 28, lasting 5-6 days. Some cramping began at 20, nausea, backache, terrific abdominal pain, in bed one to two days. She had a dilatation and curretage, suspension, and appendectomy when 30 years of age with no pain relief. Pre-sacral sympathectomy gave complete relief of all symptoms except headache, this was improved. Observed eight years.

Mrs. N. age 29, married 9 years, no pregnancies, periods always painful but much worse past three years. Family physician gave three to five morphine hypos during first thirty-six hours of menstruation. This patient had only abdominal pain, no nausea, vomiting, backache, or headache. Surgery gave complete relief. She made a very pertinent remark, "Doctor it's wonderful I never know when I'm menstruating until I go to the toilet and find the blood. You will never know how grateful I am. I was afraid I would become a morphine fiend."

Mrs. K. age 31, comptometer operator, menses began at 17 always painful. Pain increased when 26. Had stem pessary at 27, no relief. Drank two to three pints of whiskey and stayed home from work four days, also took anacin, milodal, and migrane tablets. Sympathectomy gave relief but she had developed backache and left shoulder pain about three months after operation. She feels it was due to spinal anesthesia. I believe this is an example of a psychoneurotic developing transference of symptoms.

Mrs. M. age 29, three children, menses 13, regular 28, lasting three days until first baby since then six to seven days. No pain with periods until after first baby. Pain increased after each pregnancy. A suspension and appendectomy had been performed when this patient was living in California. This gave no relief. A pre-sacral sympathectomy was performed about one year after her previous surgery. The cramps and abdominal pain was relieved but not the backache.

Miss A. single, age 29, graduate nurse. Menses 14 regular 26, six to seven days. Periods were always painful, increased after 20. Dilatation and stem pessary at 25, partial relief for eighteen months. She was an army nurse and lost two to three days time each month. She had been taking twelve to fifteen grains of codein with periods. Pre-sacral sympathectomy gave complete relief.

Mrs. L. age 25, married 2 years, menses 14, always painful increasing in severity three years. This was during the war and her husband was in the South Pacific. Sympathectomy was successful. Eight months after surgery husband returned and patient developed a penicillin resistant gonorrhea with fulminating pelvic peritonitis. At present patient has a moderate amount of pain with periods.

Conclusion; Pre-sacral sympathectomy gives complete or almost complete relief from uterine pain in all cases, providing it is properly performed.

The relief of side reactions, nausea, vomiting, headache, or backache is problematical but relief wholly or in part occurs in approximately sixty percent of cases.

Psycho-neurotics may be operated safely, recurrent monthly pain may be an important factor in their instability.

Cases should be carefully selected and evaluated. Other standard medical procedures should be given a fair trial before surgery is contemplated.

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PENICILLIN SUPERIOR TO SILVER NITRATE FOR EYES OF NEWBORN

A Memphis, Tenn., physician points out that penicillin is superior to silver nitrate in preventing the development of inflammation in the eyes of newborn infants.

Writing in the August 9 issue of The Journal of the American Medical Association, H. Charles Franklin, M. D., from the Department of Obstetrics and Gynecology, the University of Tennessee College of Medicine, presents a comparative study of 1,710 infants, 961 of whom were given penicillin and 749 silver nitrate.

Twenty (2.1 per cent) of 961 infants exhibited pus in one or both eyes during or after receiving penicillin drops and 45 (6.0 per cent) of 749 exhibited pus after silver nitrate.

Abnormalities other than the presence of pus were noted in each group, states Dr. Franklin. Swelling of the eyelids was noted in 31 per cent of infants after penicillin application and in 58 per cent after silver nitrate. Redness of the delicate lining of the eyelids was seen in 42 per cent after penicillin and in 72 per cent after silver nitrate. Watery discharge was least frequent and occurred in two per cent after penicillin and in 10 per cent after silver nitrate.

Although the silver nitrate drop method is the most popular today, the physician points out that "silver nitrate is irritating to the extent of pus formation is confirmed by the fact that a high percentage of infants in the group receiving silver nitrate prophylaxis exhibited pus on the day of birth and the first day of life. Likewise a high percentage of those infants exhibiting other abnormalities at this time was probably due to this irritation." The author adds that "instances are recorded of infants being made blind by the use of a solution too high in concentration."

The author feels that the foregoing facts suggest that penicillin is in several respects superior to silver nitrate. "Penicillin in proper concentration is nonirritating," he states, "nonpainful, nondestructive and effective in the treatment of ophthalmia neonatorum (inflammation of the eyes in the newborn)."

TIME TO CONSERVE HEARING

With three million children in the United States having a hearing loss, and millions of adults already hard of hearing, it is time to conserve hearing, according to Dr. C. Stewart Nash, President of the American Hearing Society, Washington, D. C. The national organization is joined by its 120 local chapters throughout the country in the observance of National Hearing Week, November 9-15.

"Authorities estimate that one out of every ten persons in America has a hearing loss, ranging from a slight loss to almost total deafness. The social and mental effects of this hearing loss can do much to warp the personality of a growing child, and in addition may prove an effective bar to the child's making a success of later life." said Dr. Nash. He went on to point out the necessity for parents and teachers to watch children carefully for any signs of hearing loss, especially after illnesses involving the nasal passages, ears or throat.

"Prompt attention by a competent otologist is necessary where such a hearing loss is suspected," Dr. Nash declared. "Inattention, falling grades in school, a tendency to shun the company of other persons are often indications of a beginning hearing loss. The majority of people with serious hearing defects need never have reached that stage if the trouble had been checked in its incipient state."

Dr. Nash recommended a vigorous hearing conservation program to be put in effect in the school system of the nation. This includes periodic hearing tests, medical examinations followed by prompt medical attention if any impairment is discovered, and adequate education and rehabilitation for those with a handicapped hearing loss.

So far in 1947, the Council on Medical Service of the American Medical Association has mailed more than 27,000 packets of literature on sickness insurance to high school debating students.

FILL OUT AND RETURN YOUR VETERAN'S BLANK NOW

The Diagnosis and Treatment of Latent and Active Neurosyphilis*

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Modern methods in the diagnosis and treatment of syphilis have been brought to every community and to every individual in the United States. This is largely due to the intensive campaign of the United States Public Health Service as well as the efforts of the individual physician. Medical treatment has been made readily available to all. Serologic tests for syphilis are compulsory for many occupations, for insurance and for marriage. Such tests are considered a routine part of the examination of a patient. The beneficial effects of the campaign against syphilis are already plainly visible in clinical medicine. At the present time there is only one glaring deficiency in our management of the problem of syphilis and that is the failure to employ routine spinal fluid studies in all cases. It is necessary to be aware that the precursor of all neurosyphilis, the most serious form of syphilis, can be detected early in the spinal fluid and that adequate treatment is invariably successful. This will be discussed more in detail in considering asymptomatic neurosyphilis.

Ironically enough the very fact that serologic testing has been made so easily available and its importance so stressed in the diagnosis and treatment of syphilis has produced a natural tendency for the physician to be less aware of the more purely clinical mental and physical manifestations of the disease. In other words, syphilis has come to be regarded more as a serologic disease than as a clinical condition with varied manifestations. Syphilis has a tendency to attack certain organs or systems to the exclusion of the others. The skin or the stomach may be singled out and other parts of the body spared. One notable exception is the rather frequent combination of neurosyphilis and cardiovascular syphilis. This tendency to concentrate on one system is well illustrated by the fact that fewer cases of central nervous system syphilis give a history of secondary or skin manifestations. Therefore, the physician must doubly be aware of the possibility of central nervous system involvement in every case of latent syphilis in which there is no history of secondary manifestations.

There is good indication that the central nervous system is invaded in at least 10 per cent of cases during the primary, early or late secondary stages. Treponemata have been demonstrated at this time. There is a rapid increase in the incidence of spinal fluid abnormalities up to 35 to 50 per cent of all cases after one year, with a continued increase for a few months and then a gradual decline to almost 20 per cent after 3 to 4 years. This decline in percentage is due to several factors; the development of symptomatic neurosyphilis, the spontaneous reversal of spinal fluid pathology and antisyphilitic treatment.

Why neurosyphilis develops in certain cases and not in others is still unexplainable. The theory of a neurotropic virus, a dermatotropic virus, or other strains that in themselves determine the organ to be involved lacks evidence. The argument for a neurotropic strain is based on the tendency for cases infected from the same source to develop neurosyphilis. In case of congenital neurosyphilis both parents usually have neurosyphilis. It is also known that sexual partners may both develop neurosyphilis if it develops in one. Other factors involve racial tendencies. The Western, or white race, is more susceptible to neurosyphilis than are others. The colored race and the Indian races are less susceptible. It is felt that those peoples who have more recently become infected with syphilis are less liable to develop neurosyphilis, but, as in the case of the white race, they will have an increasing tendency for nervous system involvement. Males are more commonly affected than females. Constitutional characteristics of the individual have never been established as a factor. Other predisposing factors such as trauma probably play a specific role in that the impaired tissue provides a more favorable medium for the growth of the organism. Most agree that alcoholism and the luetic infection are both evidence of psychopathy and that alcoholism per se is not a contributory factor. Why certain portions of the central nervous system should be involved in any one specific case lacks explanation except for a few vague philosophical theories.

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*Read before the Omaha Mid-West Clinical Society, Omaha, Nebraska, October 29, 1946.

DIAGNOSIS OF NEUROSYPHILIS

ASYMPTOMATIC NEUROSYPHILIS

Asymptomatic neurosyphilis includes cases with the abnormalities in the spinal fluid due to a syphilitic infection without the clinical symptoms of that infection. This is by far the most important type of neurosyphilis. It is important because it is numerically greater than the other types; because it is the precursor of all other types; and because it is readily detected and responsive to treatment. Detection of asymptomatic neurosyphilis is obviously dependent upon the spinal fluid examination. The findings consist of an increase in the spinal fluid cell count of anywhere from 10 to 100 cells, predominantly lymphocytes; the total protein content may be elevated to as high as 200 mg.%; the colloidal gold reaction shows changes in about 82 per cent and the complement fixation or flocculation tests are positive in as high as 92 per cent. The blood serology will be positive in a high percentage of cases.

Asymptomatic neurosyphilis may be detected as early as the primary or secondary stage, with continuing rise in incidence during the first two years, after which there is a rapid drop in the incidence from a peak of 50 to 75 per cent of all cases to less than 10 per cent of all cases after five years. It is generally accepted that if there is no evidence of central nervous system syphilis by the end of two years, an infection of the nervous system will never develop in this patient.

MENINGEAL NEUROSYPHILIS

In addition to asymptomatic neurosyphilis the other forms to be considered are meningeal neurosyphilis, including the gumma, vascular neurosyphilis and parenchymatous neurosyphilis. Meningeal neurosyphilis is relatively uncommon, occurring perhaps in 2 per cent of all cases of neurosyphilis. It usually occurs within 2 months to 2 years after the initial lesion. Some degree of luetic meningitis, with or without symptoms, is considered to be a precursor always of the other forms. Meningeal neurosyphilis may be classified into the diffuse and focal types, or the gumma. The diffuse form of luetic meningitis does not differ greatly from other clinical forms of acute meningitis. It tends to be a low grade type with a greater variability from time to time in the severity and type of symptoms. The outstanding symptoms are those of headache, nausea and vomiting, and the usual signs of meningitic involvement with neck rigidity. If the meningitis is primarily basilar in location there will be increased cranial nerve involvement. If it is primarily over the vertex then psychic disturbances with convulsions are more likely. In other instances the picture may be that of acute hydrocephalus with a block in the flow of spinal fluid. In all cases there is evidence of some systemic reaction to the infection, with an elevation of temperature.

The diagnosis is usually established by spinal fluid examination. The spinal fluid pressure may be moderately elevated, with an increase in cells up to as high as 2000, and with a high percentage of lymphocytes. The protein content is increased and the colloidal gold curve invariably shows changes in the mid zone. The spinal fluid Wassermann is positive in 86 per cent of cases.

In the differential diagnosis, an acute purulent meningitis is usually more abrupt in onset with a greater systemic reaction. The organism is present in the smear and in the culture. Rare forms of meningitis, such as yeast meningitis or torula, can usually be diagnosed by the growth of the causative agents on culture. Brain abscess as a rule will give a history and some evidence of a focus of infection and will also present focal signs on clinical examination. Tuberculous and benign lymphocytic meningitis may at times be impossible to exclude. In tuberculous meningitis there is usually evidence elsewhere in the body of tuberculosis which serves as a focus of infection. Also, the spinal fluid chlorides are significantly lowered in a majority of cases. In these cases the Levinson test is fairly reliable and will help to establish the diagnosis of tuberculous meningitis. In benign lymphocytic meningitis there will be no response to antiluetic therapy and it may be possible to demonstrate the development of antibodies in the blood and spinal fluid. In all cases the history of a primary lesion, or other evidence of syphilis with no treatment or inadequate treatment, should cause immediate suspicion of the diagnosis.

There is inevitably some involvement of the adventitia of the vessels and, in the more severe cases, involvement of the intima which may lead to thrombosis, hemiplegia and focal seizures. In a high percentage of all cases of vascular thrombosis which occurs in individuals under the age of 30 the etiology is a luetic arteritis.

GUMMA

The gumma is a circumscribed mass of granulation tissue which is the development of an intense localized luetic inflammation. The lesion is rubbery in consistency and usually rises from the pia mater and compresses cerebral or spinal cord tissue. It may vary from microscopic size to several centimeters in diameter. It is grayish or pink in color with a yellow center, homogenous and firm. The most common location is the convex adventitia of the brain or at the base. It occurs very rarely within the substance of the brain or spinal cord. Gumma of the central nervous system is extremely rare. There are only two cases on record in the Mallory Institute of Pathology in Boston, and over a period of 15 years at the clinic of the Boston City Hospital only 5 cases have been diagnosed. Symptoms may be those of any other expanding lesion and depend entirely upon the location of the gumma. There is no way of definitely establishing the presence of a gumma or differentiating it from any other tumor mass, except as it may respond to treatment.

VASCULAR NEUROSYPHILIS

Vascular neurosyphilis is that form characterized by arteritis with thrombosis and softening, and may involve the brain and spinal cord separately or concurrently. The arteritis is inevitably associated with some meningeal and encephalitic involvement. The meninges are usually opaque and the arteries are thickened, yellowish to pearly white in color. No vessel is immune, but the lenticulostriate and the cortical branches of the middle cerebral are more often involved. The circulatory pathology is almost always that of thrombosis and seldom, if ever, of hemorrhage. Phlebitis is rare. It occurs in 2 to 15 percent of all cases of syphilis, usually between the ages of 30 and 50 years. The average period between the initial infection and the onset is 7 years.

Clinical manifestations of cerebrovascular syphilis usually include the prodromal complaints of headache, dizziness, irritability, with sensorium changes and insomnia. The patient may also complain of various paresthesias. The onset is abrupt, however, in about 75 percent of cases and the first symptom is the appearance of luetic thrombosis. Convulsive seizures, particularly focal seizures, may accompany thrombosis. The focal symptoms depend entirely upon the location of the greatest involvement and are secondary to the disturbances in circulation resulting from vascular occlusion.

The spinal types of meningovascular neurosyphilis depend for their manifestation on whether or not the meninges or the vessels are predominantly involved. Actually vascular syphilis of the spinal cord constitutes a clinical rarity and the diagnosis is always made with hesitancy. In a case of vascular involvement with thrombosis and myelopathy with softening, the clinical signs depend entirely upon the vessel involved and the areas supplied by that vessel. It may frequently be confused with syringomyelia, but usually the diagnosis of syringomyelia can be suspected or established by the presence of dissociated sensory loss and the lower motor neuron signs. Amytrophic lateral sclerosis may be considered, but almost never does vascular neurosyphilis produce the full clinical picture of amotropic lateral sclerosis. Multiple sclerosis usually is detected by the cerebellar signs that are commonly present but are rarely, if ever, present in cases of spinal vascular neurosyphilis. A neoplasm may occasionally have to be ruled out, paricularly in the case of glioma with secondary thrombosis, in which the clinician has to rely on the age of the patient, the absence of history of syphilis, and the absence of laboratory findings.

PARENCHYMATOUS NEUROSYPHILIS

First to be considered is paretic neurosyphilis, which is a chronic form of meningoencephalitis; the spirochaete is the etiologic agent, with progressive disturbance of function of the cerebral tissue and eventual dissolution of mental and physical capacities. It has many synonyms—the best known are general paralysis of the insane and dementia paralytica. The pathogenesis is not well known, but of the theories presented, the vascular theory is the most acceptable. Paresis occurs in approximately 5 per cent of all cases and the onset may be insidious or sudden. It usually occurs within 5 to 15 years after the initial infection. The clinical manifestations are many and varied and may duplicate almost any type of neurologic and psychiatric disease. We speak of several different types: 1. The expansive or grandiose type, with delusions of power and influence and an extreme feeling of well being. This is the so-called classical type of paresis which was common, but is now rapidly becoming a rare clinical entity because of early diagnosis and treatment. 2. The type with progressive deterioration to a state comparable to imbecility. 3. The maniac type. 4. The depressed type. In these the patient may present the psychiatric picture of one or the other extreme of the affective state, usually depending upon his previous personality makeup. In either instance the diagnosis is suspected because of the absence of many of the affective features present in the manic-depressive disorders. 5. Paranoid type. This too depends largely on the previous personality makeup of the patient.

The psychiatric status of the paretic patient may resemble any of the types described above, or may stimulate almost any other type of psychiatric disease, including schizophrenia, the early presenile dementias, the alcoholic psychosis, and psychoses due to drugs. Usually, however, it is possible to pick up evidence of organic sensorium changes and dilapidation of thought processes in excess of those to be found in functional psychoses. Neurological signs include slurred dysarthric speech and tremulous handwriting, together with paralytic facies and perioral tremor. There is commonly some pupillary abnormality and the deep reflexes are often grossly exaggerated. More infrequently there may be evidence of focal involvement in the central nervous system, optic atrophy or third nerve involvement and pathological reflexes. The spinal fluid examination again is all important in establishing the diagnosis and in untreated cases the Wassermann is positive in almost 100 percent of cases. The colloidal gold reaction usually shows most marked changes in the first zone. The cells are increased usually not over 100 and the total protein content is increased to as high as 200 mg.%. The electroencephalogram is abnormal in about 85 per cent of all cases and shows prefrontal lobe involvement usually more marked on one side. The electroencephalogram may eventually prove to be of value in detecting the very early development of paresis.

Congenital paresis usually manifests itself clinically between the ages of 6 and 16 and does not differ fundamentally from acquired paresis, except for, first, the frequent association of feeblemindedness or early evidence of intellectual inadequacy; second, the many variations in physique and personality determined by luetic involvement at an early age; and third, the resistance to all forms of treatment.

Tabes dorsalis is characterized by a degeneration of the posterior spinal nerve roots and the dorsal column of the spinal cord. Clinically, the syndrome consists of lancinating pain, progressive ataxia, loss of deep sensibility with disorders of bowel, bladder and sexual functions. It occurs in 1.5 to 9 per cent of cases and is more common in the male. It is more frequent during the fifth to sixth decades of life and the average onset is 21 years after infection. Clinical manifestations include Argyll Robertson pupils in some degree in 95 percent of cases and disturbances of deep reflexes, with absent. or nearly absent, ankle jerks as the most common neurologic findings. The findings resulting from involvement of the posterior column are those of loss of deep sensibility with ataxia and hypotonia. A very small percentage of cases have trophic disturbances of the musculature, which is not to be confused with simple loss of tone. Cranial nerve signs include, in addition to the Argyll Robertson pupils, evidence of optic atrophy in many cases with cranial nerve involvement most commonly affecting the third nerve. Gastric crises may be recognized clinically by their acute onset with attacks of nausea and vomiting with or without pain in the absence of definite abdominal signs, rapid development of dehydration and the rather, abrupt recovery. Spinal fluid findings depend entirely upon the stage of the disease and the activity of the infection. It is not uncommon to see advanced cases of so-called "burned out" tabes in which the spinal fluid has reverted to normal. In the earlier stages the usual finding is an increase of cells and protein with a positive Wassermann and colloidal gold changes in the end zone.

Differential diagnoses may include chronic polyneuritis, but the evidence of predominant peripheral nerve involvement will usually make the diagnosis. There are certain uncommon forms of hereditary and degenerative diseases which may cause confusion. Charcot-Marie-Tooth muscular atrophy and Friedrich's ataxia usually occur at a much earlier age, having their onset in adolescence or early adulthood. Combined system diseases may cause more confusion and here we have to depend on the pronounced pyramidal system involvement and the blood picture. Multiple sclerosis may also have to be considered, but again the presence of definite cerebellar system involvement is helpful. Other and rarer conditions to consider are syringomyelia and tumor of the cauda equina.

TREATMENT

The treatment of neurosyphilis is dependent upon the type of neurosyphilis and the stage of involvement. Asymptomatic neurosyphilis may be treated simply by the use of trivalent arsenicals in courses of 12 to 20 injections, weekly or biweekly, in conjunction with or alternating with bismuth salycilate in oil 30.2 gm. intramuscularly. This treatment may be continued for a period of 6 to 9 months with examination of the spinal fluid at intervals of three months and, if a reversal of the spinal fluid or definite improvement is not obtained, then combined artificial fever therapy and chemotherapy is indicated. Mapharsen at the present time in doses of .075 gm. is the drug of choice because of low toxicity and easy administration. This conservative management is practical for this type, but should be limited to the early cases with moderate spinal fluid changes. In those cases of maximal spinal fluid changes early in the disease, or in those in which a strongly positive Wassermann persists in late cases, response to conservative management is less satisfactory. There are some arguments for the routine use of combined fever therapy and chemotherapy in asymptomatic neurosyphilis. The most important of these is the fact that in a large series of late cases there will be evidence of insufficient treatment due to lack of cooperation on the part of the patient or other factors in over 80 per cent. The second argument is that in a series of cases treated by parenteral therapy alone the spinal fluid is unchanged in 32 per cent and worse in 11 per cent; whereas, in the same series in cases treated by combined fever therapy and chemotherapy 100 per cent show improvement or complete reversal.

Pentavalent arsenicals, particularly tryparsamide, have been effective in bringing about clinical and laboratory improvement in neurosyphilis. Tryparsamide may be used if mapharsen and bismuth failed to influence spinal fluid changes. The drug is somewhat more toxic, however, than mapharsen and its use has the one very serious complication, toxic amblyopia.

If parenteral therapy alone does not bring about improvement, if there are marked abnormalities in the spinal fluid in the early stage, or the positive findings persist in late cases, suggesting possible parenchymal involvement, the use of combined fever therapy and chemotherapy is indicated. The common methods of fever therapy are malaria therapy, using benign tertian malaria, for a total of 10 to 12 sessions of fever above 103° F. The optimum course is 10 to 15 paroxysms of fever above 103. The second and preferred method is artificial fever therapy, best induced by radiant heat and humidity control with the use of arsenicals and bismuth at the height of fever. Combined artificial fever and chemotherapy present certain advantages in that, (1), fever is induced by physical means rather than by the introduction of a second disease; (2), the mortality associated with the treatment is drastically reduced and the morbidity is much lower; and (3), arsenicals and bismuth can be used at the height of fever, thereby enhancing the beneficial effect of the drug. In addition, there is fairly good evidence that the remission rate is higher. Malaria has only the advantage of being more readily available. Artificial fever is used in courses of 10 to 12 treatments with a total of 30 to 36 hours of fever between 105 and 106, followed by a spinal fluid examination; if there is not sufficient improvement, a total of 50 hours of fever is given. This course of treatment is followed by a rest period and the resumption of parenteral therapy.

The treatment of luetic meningitis is primarily treatment of the acute infection by neoarsphenamine or, preferably, mapharsen, in conjunction with, or alternating with, courses of bismuth. Iodides given orally or intravenously are helpful in the early acute stages of the disease. Large doses, usually 150 c.c. of a 10% solution of sodium iodide daily, may be used with a favorable influence on the activity of the disease. In addition to chemotherapy, relief of symptoms may be obtained by reducing any increase in the spinal fluid pressure. As a rule the patient should be hospitalized for a period of about 30 days in order to insure against cerebral thrombosis and the likelihood of a recurrence of the acute stage. Following the acute meningeal stage the patient should receive combined artificial fever therapy and chemotherapy, although he may be given a trial on parenteral therapy alone. This trial should not exceed a period of a few months.

Treatment of gumma of the central nervous system may be both chemical and surgical. The use of combined fever therapy in gumma of the cerebrum is dangerous because one is dealing with a space occupying lesion with possible increase in cranial pressure. Again the use of iodides orally or intravenously is helpful, and of course the use of arsenicals and bismuth is indicated. Improvement may be obtained surgically if the gumma can be shelled out of its bed.

Treatment of vascular neurosyphilis is usually unsatisfactory because by the time the condition is diagnosed there have been vascular thrombosis and destruction of tissue. The activity of the disease, however, can be halted by the use of mapharsen and bismuth and by combining artificial fever and chemotherapy in selected cases.

Parenchymatous neurosyphilis is always in itself an indication for the use of combined fever therapy and chemotherapy. Treatment in the early cases is accompanied by reasonably good results. Good recoveries may be expected in early paresis in as high as 68 per cent of the cases. Because tabes dorsalis is usually picked up at a much later age and more advanced stage, treatment is notoriously less satisfactory. The progress of the disease can again be halted, but the destruction of nervous tissue cannot be altered by any therapeutic approach. Treatment of choice in these cases is the use of combined artificial fever therapy and chemotherapy for a total of 36 to 50 hours, followed after a brief rest period by intravenous arsenicals and intramuscular bismuth. Complications of a special type such as the Charcot joint and the lancinating pains of tabes may require orthopedic and neurosurgical treatment before relief can be obtained.

Penicillin therapy is the latest development in the management of syphilis and neurosyphilis and deserves separate consideration here. It now occupies the position of any recent treatment procedure which is known to be effective, but for which the end results and the remission rate are not yet known. The effectiveness of penicillin in primary and secondary syphilis was so striking that its trial in the treatment of late forms of syphilis was mandatory. It was first used late in 1943 in the treatment of neurosyphilis, and a full scale research program was begun in 1944. It has proved to be an effective therapeutic agent in all types of neurosyphilis. At the present time it is felt that it may eventually produce a higher remission rate than the more established forms of treatment, but proof of this is as yet lacking. It has been established, however, that penicillin alone in parenchymatous neurosyphilis is not sufficiently effective, but when combined with fever therapy gives results comparable to the older methods.

In active luetic meningitis and in vascular syphilis response to penicillin is usually prompt and very satisfactory. There is, however, a tendency to relapse following treatment, which would appear to be more pronounced than with the older form of therapy.

In paresis, penicillin alone has shown itself to be more effective in early cases than in those cases with strongly positive spinal fluid. Alone it is unable to alter the course of the more rapidly progressive types or of the terminal phase of the paralytic type. In many of the series so far reported, where penicillin alone was used, in no instance had the Wassermann returned to normal nor had the colloidal gold reaction changed. The cell count and total protein content responded promptly. In those series where penicillin was combined with fever therapy the results have been much more encouraging, but again the remission rate has not been determined.

In the treatment of optic atrophy with combined fever therapy and penicillin the results are surprisingly good and may prove to be superior to other forms of therapy. Follow-up studies have not been as optimistic as the early reports.

In all cases it would appear that all improvement does not take place in the first two months of treatment, but that there is a gradual sustained improvement over a period of many months.

One of the confusing factors in the study of penicillin, and one which has not yet been eliminated, is the changing character of penicillin from time to time and the change in the relative amounts of the various fractions in different preparations. In spite of this it can now be stated that penicillin plus fever therapy is an effective method in the treatment of parenchymatous neurosyphilis. It has the great advantage of allowing simultaneous administration with malaria, which is not possible with the use of arsenicals. Eventually it may prove to be superior to other methods, when sufficient time has elapsed to allow an evaluation of the end results and the rate of emission.

(References in Reprints)

The Aspiration of Amniotic Fluid Content by the Newborn

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The aspiration of amniotic fluid content is probably a much more important cause of death among newborn infants than is generally appreciated. Many interesting and informative articles on this subject have appeared in the literature during the last ten or fifteen years. These include surveys of infant deaths, as well as experimental observations on fetuses in utero in an attempt to determine the degree, if any, of respiratory movements which occur normally and the quantity, if any, of amniotic fluid which is taken into the respiratory tract under normal circumstances.

The clinical symptoms and signs of this condition are rather characteristic. Johnson and Meyer state that "the baby breathes spontaneously at first but soon begins to have attacks of cyanosis and dyspnea which recur at intervals with increasing severity until death." This is an excellent brief description of the symptoms which are so often mistaken for intracranial hemorrhage and allied conditions.

At Touro Infirmary in New Orleans, we reviewed the causes of death among eighty newborn infants who were born alive and who died within ten days or less (see Chart 1).

Among these eighty patients, aspiration of amniotic fluid was a factor in the cause of death either alone or associated with a pneumonia in 44 per cent of the instances. Therefore, this condition is the most important single cause of death among living newborn infants. As such it should receive more emphasis than it has in the past. Among the thirty-five cases which showed aspiration of amniotic fluid content, thirteen were diagnosed clinically as congenital atelectasis, twelve as prematurity, six as cerebral hemorrhage. In only one case was the correct diagnosis of aspiration pneumonia made.

CHART I

CAUSES OF DEATH AMONG EIGHTY NEWBORN INFANTS ALIVE AT BIRTH, AGED TEN DAYS OR LESS

Cause	No.	Per Cent
Aspiration of amniotic fluid content	18	22.5
Aspiration of amniotic fluid content and pneumonia	17	21.5
Intracranial hemorrhage	13	16.2
Pneumonia	6	7.5
Infectious diarrhea	4	5.0
Congenital heart disease	3	3.7
Erythroblastosis fetalis	2	2.5
Adrenal hemorrhage	2	2.5
Esophageal atresia	2	2.5
Hemorrhagic disease of newborn	1	1.2
Congenital atresia of duodenum	1	1.2
Imperforate anus	1	1.2
Spina bifida	1	1.2
Diaphragmatic hernia	1	1.2
Volvulus	1	1.2
Unknown	7	8.7

The mode of delivery in this group was also of some interest, because the condition evidently follows all types of delivery. In ten cases the delivery was spontaneous, although three of these were breech presentations. In nine cases there was low forceps and in one instance the delivery was by mid-forceps. Six of the children were delivered by cesarean section and two by version and extraction. In seven instances the mode of delivery was not recorded on the chart. It is of particular interest to note that one-sixth of these cases were delivered by cesarean section.

The primary symptoms exhibited by these infants were largely respiratory. Cyanosis was the primary symptom in twenty-five of the 35 cases. Difficulty in resuscitation, twitching of the extremities and irregular respiration were the other symptoms recorded. The duration of life among these infants varied a good deal but it may be of interest to separate those who had pneumonia and those who did not. Among the eighteen patients who did not have pneumonia, seven (38.9 per cent) died between seven minutes and twelve hours. Eight (44.4 per cent) died between twelve and twenty-four hours. The remaining died between forty-eight and ninety-six hours. The average duration of life was twenty-one hours. Among the seventeen infants with pneumonia, four (23.6 per cent) died between one and a half hours and twelve hours after birth, three (17.6 per cent) died within twelve to twenty-four hours after birth, seven (41.2 per cent) died twenty-four to forty-eight hours after birth and the remaining three (17.6 per cent) from forty-eight hours to six days after birth. The average duration of life was thirty-six hours.

From these data it is evident that in general, when the aspiration was marked, they died earlier, whereas those with pneumonia survived somewhat longer because it required the addition of the pneumonitis to cause the death. The relative quantity of the amniotic fluid present in the lungs could only be determined on the basis of an approximation when viewing the tissue sections. All cases had desquamated epithelial cells. The majority, however, (25 cases or 71.5 per cent) were graded as having grade 1 cells. The desquamated epithelial cells, therefore, did not seem to be a very important factor in the symptoms produced in this condition. As a rule, it merely serves as evidence that amniotic fluid has been aspirated and therefore infectious agents might also be aspirated at the same time. The quantities of vernix, however, were quite variable. In three cases (8.5 per cent) no vernix was present. In the remainder, considerable quantities were present. Forty per cent showed a 3+ and twenty per cent a 4+ quantity of vernix. This high percentage of cases containing vernix is proof of the importance of vernix in the pathogensis of this process which is readily understandable when the sections of lung from these cases are examined.

Among this group of thirty-five infants there were four pairs of twins. All of these were premature. In two instances the first twin lived and the second twin died. The lungs of both of these contained large quantities of vernix. In another instance the lungs of the first twin contained no vernix whereas those of the second twin contained large quantities of it. In the fourth instance the lungs of both twins contained amniotic fluid content and both had an associated bronchopneumonia. This would indicate that the disturbance in the uterus might cause premature respiratory excursions in the second twin so that the second twin is more likely to aspirate amniotic fluid than the first.

An analysis of those delivered by cesarean section is very interesting. Among the six instances, five were full-term children. In two instances the section was performed because of placenta praevia, one because of a contracted pelvis, and one because of a preeclamptic toxemia. In two instances there was no record of why a cesarean section was performed. In five of these instances, there were large quantities of vernix caseosa in the lungs of the infants.

The interesting conclusion that can be drawn from this survey is that this condition can occur among full-term infants as well as prematures when delivered by cesarean section. It seems quite possible that the manipulation of the uterus prior to the actual liberation of the baby from its amniotic sac would stimulate respiratory movements and therefore lead to aspiration of large quantities of this fluid. Prompt aspiration by catheter of the respiratory tract by the attending pediatrician, particularly before the first inspiration, seems to be an extremely important procedure in preventing this serious complication in the fetus as a result of cesarean section.

The pathologic findings in these cases are as follows:

Grossly, very few changes are seen except for the presence of pulmonary atelectasis. Microscopically, in those cases not complicated by a pneumonia, the vernix is found plastered tightly against the walls of the alveolar sacs in the form of a pink-staining, hyalin-like membrane in the H and E section. This does not look unlike the hyalin membrane described in the lungs of patients who have died of influenzal pneumonia. The desquamated squamous epithelial cells also obtained from the amniotic fluid are usually scattered rather diffusely within the alveolar sacs but with no particular tendency to localize in any portion of the sac. They are also seen in the small bronchi. These, on H and E section, stain pink, similar to keratinized squamous epithelium on the skin and, if there is any doubt about their nature, Gram stain can be performed and they are found to be Gram positive. Lanugo hairs are also seen occasionally and when meconium is aspirated, this stains the vernix a yellowish color. The associated pneumonia is in the form of an interstitial inflammation of the alveolar walls or a bronchopneumonia, consisting of an exudate within the alveolar sacs and the bronchi. Very often both these types of pneumonitis exist together.

There has been a great deal of controversy in the literature as to whether or not respiratory excursions of the fetus occur normally and whether or not amniotic sac fluid is taken into the respiratory tract, as a result of these respiratory excursions. An interesting paper written by Barcroft and Barron appeared in 1937. These investigators observed the fetuses of sheep intact within the uterus. They observed very few rhythmical respiratory movements up to the 38th day of gestation. They could be elicited, however, after the fetus had been exposed for some time. From the thirty-eighth to the 49th day, it became increasingly easy to elicit rhythmic movements. The embryo presented the appearance of an animal which is breathing continuously but the more quietly the preparation was held the slower and shallower the rhythm. At about the 50th day or one-half way through the fetal life, the fetus becomes inert and rhythmic movements are no longer observed. Shock injected carbon particles into the amniotic sacs of rat fetuses one or two days prepartum. Seventy-five per cent of these were stillborn and only 15 per cent were living 24 hours after birth. When normal saline was injected, 58 per cent were living twenty-four hours after birth. Among the stillborn in which carbon particles were injected into the amniotic sac, 90 per cent showed carbon in the lungs. Those which did survive showed no carbon in the lung. Therefore, the authors stated that they could not contend that the aspiration of amniotic fluid is a normal physiological process. They believed that these fetuses were subjected to an excessive respiratory stimulation resulting from fetal anoxia, secondary to the manipulation and operative procedure.

These data seem to support the view that although there may be variable amounts of respiratory movements in utero this movement is not a significant one and that it is probably abnormal for the fetuses to aspirate large quantities of amniotic fluid deep into their respiratory tracts.

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* * *

SUPPLEMENTING INFANTS' DIET WITH MEAT

Strained meat, a concentrated source of protein, can now be added to the formulas of bottle-fed babies beginning at the age of six weeks, according to Ruth M. Leverton, Ph. D., of Lincoln, Neb., and George Clark, M. D., of Omaha, Neb.

Writing in the August 9 issue of The Journal of the American Medical Association, the authors state that "the use of meat in the diet of infants before the age of six to nine months has not been a general practice, because of the prejudice that meat is hard to digest and because it has not been available in a suitably homogenous form. With scientific evidence to refute the prejudice and with commercially strained meat now available for use, meat presents itself to the pediatrician and parent as a concentrated source of high quality protein for supplemental feeding at an age when the protein requirement, expressed on the basis of body weight, is at its highest."

Dr. Leverton, from the Department of Home Economics and Dr. Clark, the Department of Pediatrics, University of Nebraska, state that during a six month period 33 infants were studied; beginning at the age of six weeks, 18 received the strained meat supplement and 15 were observed for comparison.

The authors explain that the "strained meat was mixed with the formula just before it was distributed into the bottles for individual feedings. The amount of meat added was determined by calculating the quantity necessary to increase the protein content of each infant's formula 25 per cent, and therefore it varied with the strength of the formula and the variety of meat used. The varieties were veal, beef, pork and lamb; one was used each week, and then the sequence was repeated. The amount of strained meat averaged about 27 grams (approximately one ounce) daily. The total amount was not added abruptly—one third of the total was added for three days, this was increased to two thirds for the second three days, and then the full amount was added beginning the seventh day. The 'dextri-maltose' in the formula was decreased sufficiently to compensate for the calories furnished by the meat."

The nurses considered that in general the babies who received strained meat routinely were more satisfied and slept better at night than did the 15 who did not receive this supplement. Dr. Clark, who was in charge of the medical care for all the children, considered that the babies were in better physical condition as a result of receiving the meat supplement for it promotes the formation of hemoglobin and red blood cells.

MAIL YOUR VETERAN BLANK AND PHOTOGRAPH NOW

Analysis of Elderly Primiparas*

SAMUEL L. THIERSTEIN, M.D.**
Lincoln, Nebraska

The most desirable time for a woman to begin bearing children is before age twenty-five years. In society, as we have it today, there are more attractive opportunities for female employment, and the period of schooling has lengthened for both men and women. As a result there are an increasing number of families where the wife is more advanced in years at the birth of her first child. The public has a feeling that a woman, near age forty years, becoming pregnant for the first time, is subjecting herself to considerable hazard, and this belief has been shared by the medical profession. We have reviewed all the primaparas, age thirty-five or above, delivered at St. Elizabeth hospital in the three year period 1944, 1945 and 1946 to evaluate age as a risk to either mother or infant in this group of patients. The term elderly primipara is universally applied to the patient delivered of her first viable infant after the age of thirty-five years.

At the outset we may speculate regarding what abnormalities are to be expected in an elderly primipara. Abnormalities may be physical or endocrine in character, and in most cases a combination of several factors. It is evident that a lapse of fifteen years in any given individual's life brings with it some physical changes. The bony pelvis has fixed diameters and therefore does not change. The soft tissues become more friable and the elastic qualities decrease with age. Vascular, nephritic and cardiac diseases have, at times, made their appearance in this decade of life. When a pregnancy is super-imposed on these conditions a higher incidence of complications is to be expected. Pregnancy and labor do not ordinarily overtax the physical resources of a woman, but, in the case of prolonged labor, the response to physical stress and strain is better in a younger woman.

Abnormalities of an endocrine nature in the elderly primipara are usually not secondary changes, brought about by years, rather they are inherent characteristics. Normal endocrine activity influences physical appearance and body build, and it also influences personality, resulting in a behavior that makes for an interest in marriage and childbearing.

The elderly primiparas fall into two endocrine patterns. The first group includes those who have been married a number of years before becoming pregnant. In the second group are those married at a more advanced age, but becoming pregnant soon after marriage. In the first group there is likely to be some degree of endocrine and physical deficiency or there may be an emotional maladjustment in not wanting a child. The delay of conception in such a marriage may be due to either husband or wife and it may be actual or intentional. In the recently married group, sterility is not a factor. However, there must be some explanation for this individual's lack of aggressiveness to find a suitable companion until so late in life. It is reasonable to assume that in both groups many may have an endocrine deficiency; in the first group it is manifested as a lack in fertility and in the second group it may sometimes be a lack in biologically attractive qualities.

This discussion comprises thirty-two elderly primiparas from an obstetric service of 2962 deliveries occurring in a three year period: The incidence is 1.08% or once in 93 obstetric cases. The patients were attended by twenty-four physicians. A considerable number of the physicians are in general practice and this is reflected in the conservative policies followed in the conduct of labor.

The age distribution is from 35 to 43 years, as seen in Table 1, with an average of 38.0 years. This is a higher average age than most series of cases reported.

TABLE 1

Age Distribution

35 years	4
36 years	5
37 years	6
38 years	5
39 years	6
40 years	1
41 years	3
42 years	1
43 years	1

Table 2 indicates the complications of pregnancy in this series. The prenatal course was complicated by hypertension and other signs of toxemia in eight cases. Other evidences of toxemia such as edema, albuminuria, headache, etc., without hypertension were present in additional cases. No patient progressed to eclampsia, but this can partially be accounted for by the frequency of nephritic and vascular types of toxemia in this age group, rather than pre-eclamptic type of toxemia. Fibromyoma were obserevd in four patients. It is possible that this condition was more frequent but was not recorded on the labor record. Placenta previa was the complication in one case.

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*Presented at St. Elizabeth's Hospital Staff Meeting, April 22, 1947.

**From the Department of Obstetrics and Gynecology, St. Elizabeth Hospital, Lincoln, Nebraska.

TABLE 2

Complications of Pregnancy

Toxemia with hypertension	25.0%
Fibromyoma uteri	12.5%
Premature labor	9.4%
Placenta previa	3.1%

TABLE 3

Types of Delivery

Spontaneous vertex	13
Low forceps	10
Mid-forceps	2
Spontaneous breech	2
Breech with forceps to the head	1
Classical cesarean section	3
Low cervical cesarean section	1
Total	32

The period of gestation in all the cases ended very closely to the expected date of delivery. Over 50% delivered within five days of the calculated date and 90.6% delivered within ten days of that time. The remaining three patients delivered prematurely: one terminating in the 26th week and two in the 36th week of pregnancy. No patient had gone more than ten days beyond term. Inductions were done in three cases.

The types of delivery are given in Table 3. Twenty-eight infants were delivered vaginally, of which three were breech presentations. The incidence of cesarean section was 12:5%, that of breech presentation 9.4%, and forceps were applied in 46.4% of vaginal deliveries. The indications for cesarean section in this group are listed in Table 4.

TABLE 4

Indications For Cesarean Section

Placenta previa	1
Rigid soft parts, prolonged ruptured membranes	1
Cephalo pelvic disproportion	1
Post-maturity, large infant, inertia to induction	1

Episiotomies were done in 60.7% of vaginal deliveries. The remaining 39.3% had lacerations which necessitated repair. The end result was that, without a single exception, every patient required a perineal repair. This is evidence of friability of the tissues in patients of this age.

The average length of labor was 15.2 hours. This is no increase over the length of labor in primiparas of all ages. There were five prolonged labors of 30 hours or more; in all of which the infants' weight was over 7 lbs. Twelve labors were 10 hours or less.

The post partum period was relatively uneventful for all mothers; there were no deaths. Three patients ran a febrile course; two were abdominal sections and one a spontaneous vaginal delivery. The longest hospital stay was fourteen days.

Infant mortality was 3.1%; this death being a 26 week premature. Females dominated over males in a ratio of 18 to 14. The average weight of the infants was 3120 gm. or 6 lb. 14 oz. Four infants weighed over 8 lb.; the greatest weight was 8 lb. 11 oz.

Only four infants were on breast feedings when dismissed from the hospital; all others were dismissed on formula. Four infants had nutritional complications, gaining poorly, being 8 oz. or more below birth weight at the age of ten days. This is a high percentage of nutritional problems. One infant gave evidence of birth trauma by spasticity during the first few weeks of life.

We were able to ascertain the length of marriage in twenty-five cases. Eleven patients were married less than three years with an average of 1.9 years, and fourteen were married for longer periods ranging from 3 to 18 years with an average of 11.0 years. The recently married patients gave a history of delayed, scanty or irregular menses in 9.1% of the group, while in the group married 3 to 18 years it was present in 28.6%. The patients with a period of barren marriage definitely had more labor complications. All cesarean sections were in this group, prolonged labor was more frequent and in vaginal deliveries the average length of labor was four hours longer. The infants of these mothers also had more complications. In this group were the one infant death, one birth injury and a higher ratio of infants with nutritional difficulties. Table 5 gives some further details in relation to length of marriage.

TABLE 5

Comparative Analysis in Relation to Length of Marriage

	Married less than 3 years	Married 3 to 18 years
Total number of cases in group	11	14
Average age of patient, years	38.4	38.1
Average years married	1.9	11.0
History of mentrual disorders	9.1%	28.6%
Average length of labor, hours	13.5	17.3
Cases with labors prolonged over 30 hours	1	3
Types of delivery—Spontaneous	4	6
Low forceps	4	3
Mid-forceps	1	0
Breech	2	1
Cesarean Section	0	4
Complications of infant—		
Prematurity	1	1
Nutritional difficulties	1	2
Birth injury	0	1
Infant death	0	1

A review of the literature of the past five years brings to light some valuable information. The incidence of elderly primiparas is given from 1.08% to 2.68%. Almost all authors agree that there is little increase in length of labor, but there is a markedly higher percentage of toxemia in elderly primiparas. Fibromyomas are reported as a frequent complication. Fetal mortality is considerably elevated in all series reported and may be said to average about double that of the entire hospital service.

An important practical observation made in the large series of Kuder and Johnson is the rise in complications as pregnancies go beyond term. Postmaturity is dangerous to both mother and infant. Patients two weeks or more past term had more operative deliveries, had prolonged labor four times more frequently, and infant mortality was three times as high as those delivering at term.

The physician responsible for the care of the elderly primipara must take into special account the safety of the infant. Since age may limit the number of children in the family to one, the infant's importance is greatly increased and its loss constitutes a tragedy. Conservative management therefore implies not only that no harm be done to the mother, but also the avoidance of undue risk for the infant. Where there are good reasons to anticipate a difficult vaginal delivery, an abdominal section is more conservative than a prolonged labor with trauma to mother and infant. The decision to do operative procedures is to be made early when conditions are favorable and not as a last resort. Even with modern therapy, cesarean section is not without mortality, and this is especially true if the operation has been long delayed.

Some elderly primiparas deliver spontaneously in a very short time and these should by no means be deprived of a trial labor. Others have clear-cut indications for cesarean section. Finally, there are border-line cases where the combined interests of mother and infant provide indication for cesarean section which would not be sufficient indication in young primiparas. Indications for cesarean section in elderly primiparas are signs that point to a prolonged and difficult labor. Some of these conditions are enumerated: 1. Masculine type pelvis with moderate cephalo-pelvic disproportion. 2. Membranes ruptured for 12 to 24 hours and ability to deliver vaginally not yet established. 3. Twelve hour trial labor with unsatisfactory progress. 4. Breech presentation with evidence of disproportion. 5. Ten days past term with no response to medical induction.

Low cervical cesarean section under local anesthesia is highly desirable for abdominal delivery. One half of one percent procaine is used and atropine is the only premedication given. A low cervical section provides the mother maximum protection against infection. If a cesarean section is done in the interest of the infant, an anesthetic must be employed which in no way impairs its prospects of survival. A general anesthetic is a respiratory depressant and will in some cases necessitate artificial stimulants to induce breathing. Spontaneous cry and breathing are very important factors in establishing a favorable outlook for the infant. An explanation of the benefit to the infant will in most cases bring willing cooperation from the mother in the choice of anesthetic.

SUMMARY

1. Thirty-two primiparas ages 35 to 43 years with an average age of 38.0 years are reviewed and complications analyzed.

2. Prenatal complications were placenta previa, prematurity, fibromyomas and a high incidence of toxemia.

3. Adequate episiotomy is indicated in every vaginal delivery. Laceration occurred without exception where episiotomy was not done.

4. Average length of labor was 15.2 hours, which is no increase over that of primiparas of all ages.

5. Type of delivery was spontaneous vertex 40.6%, low forceps 31.2%, mid-forceps, 6.3%, breech 9.4%, cesarean 12.5%. There were no maternal deaths.

6. Female infants predominated in ratio of 18 to 14. Average weight was 3120 gm. (6 lb. 14 oz.). Nutritional complications were encountered in 12.5% infants. Infant mortality was 3.1%.

7. The group married 3 to 18 years definitely had more maternal and fetal complications than the group married less than 3 years.

8. An endocrine deficiency is often seen in the elderly primiparas, exhibited most frequently as a lack in fertility and in some cases as a lack in biologically attractive qualities.

9. Indications for abdominal delivery are broadened in the elderly primiparas, to safeguard the life of the infant.

10. Low cervical cesarean section under local anesthesia is recommended, for abdominal delivery, to give greatest protection to both mother and infant.

11. The elderly primiparas may well be encouraged. The danger of labor is not materially increased. Pre-natal complications are increased by reasons of advance in age. Fetal complications are more numerous. Each case requires individual and special care.

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* * *

CIRRHOSIS OF LIVER NOT SYNONYMOUS WITH ALCOHOLISM

A serious disorder of the liver, known as cirrhosis, has been persistently identified as alcoholic in origin. Three Philadelphia doctors suggest in the interest of scientific accuracy "that all reference to any type of cirrhosis as 'alcoholic cirrhosis' be abandoned."

Despite the progress of medical science in recent years in the study of the origin of cirrhosis of the liver, "its cause and mode of development continue to remain part of the mysteries of medicine," according to Drs. Russell S. Boles, Robert S. Crew and William Dunbar, from the Medical and Pathological Departments of the Philadelphia General Hospital, writing in the June 21 issue of The Journal of the American Medical Assciation.

Portal cirrhosis, the type most frequently found in this country, is generally accepted as being synonymous with alcoholic cirrhosis, state the authors. In the portal area is a branch of the portal vein which drains the blood from the intestinal tract. When the portal vein becomes obstructed by degenerate cells which are replaced by scar tissue, increased pressure is necessary for forcing blood through the liver. This leads to disastrous results such a profuse bleeding, jaundice and swelling of the abdomen and later the legs.

The authors present an analysis of 3,637 postmortem examinations made between 1942 and 1946. In this group, 142 cases of portal cirrhosis were found. It was possible to obtain an accurate history concerning the use of alcohol in 64 of the 142 cases. Fifty were alcoholics and 14 claimed total abstinence. In the remaining 78 cases there was either no record of indulgence in alcohol, or the history concerning its use was questionable.

"It is significant that in younger persons with cirrhosis, namely those under 40 years of age, nine of 13 admitted heavy drinking," the authors point out.

Alcoholism is thought to contribute to the production of cirrhosis of the liver because it is believed that the alcoholic never eats enough and therefore does not get the essential substances, or if he does take food he does not digest and absorb the needed factors.

On the other hand, the authors cite the theories of other investigators who believe that cirrhosis of the liver may be caused by: intestinal bacteria following intestinal irritation from alcohol, acid fermentation or some other agent; allergic reaction resulting in shock, the result of repeated injection of egg white or other protein and bacterial infections combined with poisons that are toxic to the liver.

THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dullness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous, or stupid at school. A happy solution to the problem is Pablum. Pablum furnishes protective factors especially needed by the school-child—especially calcium, iron and the vitamin B complex. The ease with which Pablum can be prepared enlists the mother's cooperation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

Tuberculosis Abstracts

That mortality statistics fail to show the magnitude of the tuberculosis problem in any community is not a new idea. An individual may have been spreading tubercle bacilli for years and yet heart disease or an intercurrent infection may account for the terminal diagnosis entered on the death certificate. Pathological reports, when available, give a more accurate measure of the amount of tuberculosis in the population than do vital statistics.

A PATHOLOGIST LOOKS AT TB

The autopsy records for the past ten years at Bellevue Hospital (New York City) reveal some important facts about the tuberculosis problem in this large metropolitan institution. Much of the information in these records is not found in death certificates and hence does not appear in vital statistics.

In the period from 1935 to 1945, 7,631 complete post-mortem examinations were done on individuals over 16 years of age, from all hospital services. One case out of every 10 examined revealed tuberculosis cavitation. Tuberculosis as the cause of death in the whole group showed the highest rate between the ages of 16 and 40. However, two out of three of all the "spreaders" of tubercle bacilli were over 40 years of age, with many of them dying from causes other than tuberculosis. Most deaths from all causes in hospitals are in individuals over 40 years of age. In the epidemiology of tuberculosis the number of cases "spreading" the infection—not the mortality rate within a certain age group—is the important and too often overlooked fact in the attack upon the tubercle bacillus.

The records of the cases with tuberculosis cavity formation shows that 13 out of every 100 were not recognized clinically. Eight out of every 10 of the unrecognized cases were in individuals over 50 years of age.

The reasons for this situation may be many, but three are outstanding. First, a disease of more serious immediate concern was the reason why the individual became a hospital patient. Second, non-tuberculosis lung diseases are more common in older persons which makes a correct diagnosis of tuberculosis more difficult. Third, the old dictum that serious tuberculosis is rarely acquired after 40 years of age has tended to dull medical thought about this disease in older persons unless there is a history of tuberculosis. A case with a cancer and a tuberculosis cavity may die from the cancer but the spread of tubercle bacilli can be just as effective as if the whole process were tuberculous in nature. From these data, it is easy to see why the program to x-ray the chests of all hospital admissions and out-patients is of great importance.

The tuberculosis problem in a hospital may not truly reflect that of the community, for only those with serious illness will be represented. For the past two and one-half years an opportunity has been given to examine all cases of unexpected deaths, including deaths from accident, from suicide, from homicide and from obscure causes in Manhattan. The group is a representative cross-section, though small, of the inhabitants of New York City.

In this discussion, only the presence of tuberculous cavity will be considered, for this group represents the "spreaders" of the tubercle bacillus. In a group of 1,235 adults over 20 years of age, tuberculous cavity formation was observed in one of every 20 cases. No tuberculous cavity was found in 100 individuals under 20 years of age. One in every 16 white males, one in every 24 Negro males, one in every 30 Negro females and one in every 116 white females showed tuberculosis cavity formation. In this group, open tuberculosis with cavity was present four times more often in the adult male than in the adult female. In males over 30, six out of every 100 showed the presence of tuberculous cavity.

From these few figures, an idea of the tuberculosis problem on this congested island is obtained. The individuals in the group examined represented many occupations—salesman, waiter, porter, housemaid, truck driver, bartender, elevator operator, auditor, clerk, gangster, etc. Supposedly they were well and at work yesterday—today they are found dead. Among them, it was unusual to unearth a known tuberculous case. The cause of death given by the Medical Examiner's Office reveals that in only one-fifth of these cavity cases is tuberculosis set down as the cause of death.

This shows how an erroneous idea may be obtained with regard to tuberculosis when data from death registration receive undue weight. This also shows that if x-ray surveys are to be effective, every adult, especially all males, in a community should be included.

The socio-economic problem presented by the above figures looms large. It is the breadwinner who is most often infected. Those who mingle most in masses of humanity are the ones who most frequently contract a serious infection and who spread the infection most. No adult age group escapes and the problem of tuberculosis control demands maximum efforts to prevent exposure of adults to infection.

The decrease in tuberculosis in the very young has led some to believe that, if we can rear a population free from tuberculosis infection, the problem of tuberculosis will be solved. There is plenty of evidence that young adults with negative tuberculin reactions can die from an infection acquired in adult life.

In the solution of the problem of tuberculosis the fullest cooperation of an enlightened public opinion is urgently needed. Any community with pride in the health of its citizens; with a compassion for those who, through no fault of their own, become ill; and with sure justice for those recalcitrants who knowingly endanger others can go far in the struggle against the tubercle bacillus. The crucial battle has barely begun. Let us see it through to success.

A Pathologist Looks at TB, Edgar M. Medlar, M. D., Bulletin of the National Tuberculosis Association, January, 1947.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

CLEVELAND CHOSEN AS SITE FOR A.M.A. MID-WINTER MEETING IN JANUARY

The Executive Committee of the Board of Trustees of the American Medical Association has announced that the mid-winter meeting of the House of Delegates will be held in Cleveland, Ohio, on January 5 and 6, followed by a general scientific session for the general practitioner on January 7 and 8. The Cleveland site was chosen after a careful survey of more than 10 cities in the west and southwest. Cleveland provided the most satisfactory accomodations.

RESEARCH FELLOWSHIPS — THE AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians announces that a limited number of Fellowships in Medicine will be available from July 1, 1948 - June 30, 1949. These Fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in Internal Medicine. Assurance must be provided that the applicant will be accepted in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work.

The stipend will be from $2,200 to $3,000.

Application forms will be supplied on request to The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and must be submitted in duplicate not later than November 1, 1947. Announcement of the awards will be made as promptly as is possible.

More than 1,000 medical specialists in x-ray and radium are expected to attend the 48th annual meeting of the American Roentgen Ray Society which will be held at Haddon Hall in Atlantic City, September 16-19, 1947.

SECOND ANNUAL POSTGRADUATE COURSE IN DISEASES OF THE CHEST

The American College of Chest Physicians is sponsoring a second annual postgraduate course in diseases of the chest to be held during the week of September 15-20, 1947, at the Municipal Tuberculosis Sanitarium, Chicago, Illinois.

The emphasis in this course will be placed on the newer developments in all aspects of diagnosis and treatment of diseases of the chest.

The course will be limited to 30 physicians. Tuition fee is $50.00.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY, INC.

The annual meeting of the Board was held in Pittsburgh, Pennsylvania, from June 1 to June 7, 1947, at which time two hundred and fifty candidates were certified.

A number of changes in Board regulations and requirements were put into effect. Among these is the new ruling that the Board does not subscribe to any hospital or medical school rule that certification is to be required for medical appointments in ranks lower than Chief or Senior Staff of hospitals, or Associate Professorship in Schools of Medicine, for the obvious reason that such appointments constitute desirable specialist training. At this meeting the Board also ruled that credit for graduate courses in the basic sciences which involve laboratory and didactic teaching rather than clinical experience or opportunities will be given credit for the time spent up to a maximum period of not more than six months regardless of the duration of the course.

The next written examination (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 6, 1948, at 2:00 P. M.

Applications are now being received for the 1948 examinations. Closing date for these applications will be November 1, 1947.

Formation of the Omaha Obstetrical and Gynecological Society, with membership limited to specialists in these two fields, has been announced by Dr. Maurice E. Grier, first president of the group. Dr. Charles F. Moon is President-elect and Dr. Burnell V. Reaney, secretary-treasurer. Dinner meetings are planned at 6:00 p.m. on the third Wednesday evening of September, November, January, April and May, at the Omaha Athletic Club.

AMERICAN MEDICAL ASSOCIATION SECRETARY'S LETTER

Steps already have been taken to coordinate the activities of the A.M.A.'s National Committee on Rural Medical Service as recommended by the House of Delegates.

Thomas A. Hendricks, secretary of the Council in Medical Service, and Mrs. Virginia Shuler, secretary of the Committee on Rural Medical Service, met with Chairman F. S. Crockett at Lafayette, Ind., and initiated plans for the third annual rural health conference to be held sometime in February. Plans are underway to prepare a handbook for distribution at this conference. It will detail the action which has been taken on various resolutions since their adoption at the '47 Chicago conference.

Other matters discussed at the Lafayette meeting included extension of prepayment medical care plans in rural areas; development of local rural health councils and special scholarships for medical students who would return to rural areas to practice.

Dr. Donald G. Anderson, former dean of Boston University School of Medicine, has taken over Dr. Victor Johnson's duties as secretary of the Council on Medical Education and Hospitals. Dr. Anderson, who received his M. D. degree from Columbia in 1939, at one time was associated with Dr. Chester Keefer in penicillin research for the Office of Scientific Research and Development. His research publications deal primarily with employment of the sulfa drugs and penicillin and streptomycin in the chemotherapy of infections.

Calvin W. Stillman, who has just completed his preliminary examinations for the doctor's degree in economics at the University of Chicago, has joined the staff of the Bureau of Medical Economic Research as associate in economics.

DIRECTORY PLANS UNDERWAY

At least two carloads of special lightweight paper will be required for the new American Medical Directory, a 3,000-page volume which normally is issued every two years. It is now almost five years since the 17th edition of the directory was published in 1942. The delay has been due to the shortage of clerical help and mechanical labor in the Chicago area as well as to the scarcity of paper.

The Superintendent's Office, which supervises printing production at headquarters, reports that the paper shortage existing for some time has presented one of the biggest problems in getting out the directory. Because of the shortage of compositors in our printing department, composition work on the directory will probably have to be done outside of the A. M. A. plant. Printing, however, barring unforeseen problems, may be done on the A. M. A. presses.

It is hoped that compilation of names will be started within the next few months, so that the 18th edition will be ready for delivery by at least the latter part of 1948. Since publication of the 1942 edition, information on 37,462 new physicians has been added to the files, and the names of 17,860 physicians who have died have been deleted.

Orders for the new directory are NOT being accepted at the present time, but as soon as plans are completed a letter, prospectus and card asking for directory information and advance orders will be sent to every physician in the U. S., its possessions and Canada.

Incidentally, the A. M. A. is presently using 310 tons of paper a month for The Journal, Hygeia and the many other special journals devoted to specific fields of medicine.

MAIL YOUR VETERAN BLANK AND PHOTOGRAPH NOW

HOSPITAL NEWS

7 NEBRASKA HOSPITALS ANNOUNCE HIGHER RATES

Announcement of further rate increases and adjustments, effective July 1st, have been made by Bishop Clarkson, Immanuel and Nebraska Methodist Hospitals, Omaha and by Bryan Memorial and Lincoln General Hospitals, Lincoln. The increases, averaging $1.00 per bed per day, are supplemented in some instances by upward adjustments in charges for special departmental services, including Surgery, Laboratory, Anesthesia, etc. All of the institutions gave the constant upward trend in hospital costs as the reason for the changes. In addition, a flat initial $5.00 laboratory charge has been established at Bishop Clarkson Hospital to cover blood count, urinalysis and serology, which will be done routinely on all patients who remain 24 hours or longer, excepting tonsillectomies.

An increase of 50 cents per day was instituted also on July 1st by St. Catherine's Hospital, Omaha, while Brewster Hospital, Holdrege, advanced room rates 10 percent.

BLUE CROSS PLAN SHOWS GROWTH

Increases of more than 50% in total earnings and in the amount of benefits paid for members were recorded during the first half of 1947 over the corresponding six months' period of 1946, the semi-annual report of Nebraska Blue Cross Plan reveals.

Total income for the January 1-July 30, 1947 period was $312,944.78, as compared with $204,111.15 in 1946. Claim payments to hospitals jumped during 1947 to $241,015.31, as against $155,583.97 for the first six months last year. Membership showed an increase of more than nineteen thousand on July 1, 1947 over the same date of 1946, with an enrollment of 89,669 this year, against 70,467. June, 1947 claim payments totaled $42,417.98 as compared with $27,631.82 a year ago. Twenty-six new groups, with a total enrollment of 2,608, were added in June, with 80% of the new members in outstate communities.

LINCOLN—A contract for the construction of a new west wing at Bryan Memorial Hospital has been let and work began August 1st.

The structure will be three stories in height, with two floors providing 16 beds each for patients, in two to four bed accomodations. The ground floor is to include two class rooms for nurses and internes' quarters and a study room. There will be a solarium on each floor. Cost of the project, furnished, is to be $140,000.

HOLDREGE—Completion of a new addition to the Brewster Hospital here has increased the capacity of the institution to 60 beds.

OMAHA—Work has been started at the University of Nebraska College of Medicine and Hospital preparatory to erection and installation of an entire boiler plant which is to be moved 150 miles, from the Cornhusker Ordnance plant at Grand Island, and reassembled on the Omaha site. The gigantic removal project will include two three-hundred horsepower high pressure boilers together with the brick and tile building in which they were housed, a program which will involve an expenditure of approximately $100,000, which is less than half the cost of the original plant. The building will be reconstructed at the west side of the present medical school power house, and equipment of the two plants will be combined in the new two-story structure. Present plans contemplate completion of the project by the end of 1947.

Progress on Children's Memorial Hospital indicates completion of the new structure by approximately January 1, 1948, nearly a year later than had been anticipated originally. Shortages of skilled labor and materials have been deterring factors. A fund of $25,000 has been raised by the Nebraska Elks Association for equipping of one wing of the new structure and a contribution of $500 has been made by the American War Mothers local chapter to furnish the Admissions office. Miss Grace V. Barber, of Pittsburgh, Pa., formerly superintendent of Women's Hospital of the University of Pittsburgh Medical College, has been appointed head of the Omaha institution. She is a graduate of Presbyterian Hospital Nursery School, Pittsburgh.

A medical staff of 87 Omaha physicians and surgeons has been appointed, with Dr.

Joseph A. Henske, chairman of the Department of Pediatrics of the University of Nebraska College of Medicine, as the first president.

OSHKOSH—The Oshkosh hospital fund was oversubscribed when "a friend" contributed $3,000, according to a report in the Garden County News. Contributions to the fund totaled $23,114 as of early August.

SCOTTSBLUFF—Plans for completion of the interiors of the fifth and sixth floor of West Nebraska Methodist Hospital here are under way. Rev. E. E. Pengally, Superintendent, soon will undertake the huge task of raising $200,000 in contributions in the local community to finance the project.

NEBRASKA MEDICAL SERVICE

Dear Doctor:

Enrollment is our most important task for the balance of 1947. An all-out effort must be made to increase our enrollment to 50,000 members by January 1, 1948.

The American people have complete confidence in the insurance principle and they desire to participate in adequate and economical plans for health care, as evidenced by the 27 million Blue Cross members and 5 million Medical Care Plan enrollees in the nation.

The voluntary pre-payment medical care plans are an attempt on the part of the Medical Profession to make available good and adequate medical care to the American people, under terms and conditions within the reach of all.

This attempt to make medical service more available to the mass of the public by the application of the insurance principle of spreading the risks is the evolution of the thinking and realization of a socially minded profession.

The Nebraska Medical Service must have the active interest and support of the Medical Profession in Nebraska if it is to succeed in its effort to provide the people of this State with a practical, efficient and economical plan to budget the costs of high quality medical care.

We are enclosing in this letter a detailed plan of our enrollment campaign. Read it over carefully. We need your help. May we count on your support?

Sincerely yours,
Arthur J. Offerman, M. D.

ENROLLMENT PROGRAM

NEBRASKA BLUE CROSS AND BLUE SHIELD PLANS

In order that you may be informed of future enrollment activities of the hospital and medical service plans, we wish to outline the program which is being prepared and will be started in July.

EMPLOYEE GROUPS

(Those business firms with five or more employees)

Since we know that business firms are the best groups to enroll from an actuarial standpoint, the enrollment department will concentrate its efforts for the next year on such firms throughout the state.

(Out of every dollar received in dues, we are now paying out 75 cents to hospitals and physicians for care received by our members.) In order to reach these prospective groups, the office in Omaha is now preparing a file of business concerns in cities having a population of 2,000 or more. These firm names are being sent to us through the co-operation of physicians and hospitals. Recently we were able to employ two experienced men who will direct the actual enrollment work. These two men with the aid of two other of our less experienced representatives will go from city to city on a pre-arranged schedule to conduct special enrollment campaigns. Except for the larger cities, it is our hope to conduct an average of four membership drives per month. At present we have many Blue Cross and Blue Shield groups in cities which will be served by our representatives. Not only will they build goodwill and aid in the operation of the groups, but they will be able to add many more members through their contacts. These service calls will be made during the special campaign.

Physicians and hospitals can be of great assistance in making these campaigns a success. From experience, we know that word from the family doctor to his patient is enough to satisfy the prospect of the merit of our plans. This is particularly true when a physician or hospital official mentions the value of our plans to the heads of firms. In other words, employers may not understand that Blue Cross and Blue Shield are sponsored by the physicians and hospitals of our state for the purpose of providing families with a method of meeting major medical expense at the minimum cost. Incidentally, a successful enrollment in our voluntary plans will have a great deal to do with forestalling the proposed tax-supported and compulsory health insurance scheme which was recently recommended again by President Truman.

COMMUNITY GROUP ENROLLMENT

A method has now been developed whereby those persons who are self-employed or work where there are fewer than five others may now enroll. This is called Community Enrollment and will not be attempted in a city until at least six months after an "employee group" campaign has been conducted. By experience, we know that a community is better informed and more ready to accept Blue Cross and Blue Shield if these campaigns are planned for a later date. Naturally, it takes careful planning by a local organization who will sponsor such a drive.

Chambers of Commerce (or some other agencies) assemble representatives of various civic and service clubs for the purpose of explaining the benefits of our plans to the community, and recommend that a committee be formed to carry out the actual enrollment activities. After committees are formed, our representative meets with them to complete the details for the drive. Publicity material, such as news stories, newspaper advertising, posters, films for use at the theaters, and descriptive folders are used to inform the public about their opportunity to enroll. These campaigns are usually conducted with the aid of many volunteer workers who call on their neighbors to explain the plans and help them fill out their applications. Since we require a quota in all groups in order to secure a cross-section of the healthy with the less healthy, it is highly important that the committee be composed of men and women who are recognized as community leaders and will go "all-out" to make the campaign a success. (At present, out of every dollar received in dues from Community Groups we are paying out more than 80 cents to hospitals and physicians for care received by our members.)

RURAL COMMUNITY ENROLLMENT

As a third step in our plans to make membership available to the people of our state, we have developed a method of enrolling the rural families. Because we know that the interest develops more slowly in the rural areas, we have found that campaigns are more successful if conducted after a city or community-wide drive is completed. It is more difficult to organize a committee in a rural area to include the entire county; therefore, we will form groups on a township basis. Boundary lines of a township or a combination of adjacent townships may be used to form a group if a committee is established to carry out the actual enrollment activity. A representative from our office will assist the committee by instructing them about our minimum requirements and helping them to organize their volunteer workers. Publicity material is furnished by our office. As is true with a city community group, it is essential that the best leaders in the community be selected for the commtitee.

The people in Nebraska are ready to join Blue Cross and Blue Shield. All they want to know is how to go about it. A word from their physician, his assistant, or from an employee at the hospital is about all they need. If you can't answer their specific questions about forming a group, ask them to mail a card to us, and we'll do the rest.

—ENROLLMENT DEPARTMENT
Blue Cross - Blue Shield Plans
330 City National Bank Building
Omaha 2, Nebraska

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE CASH RECEIPTS AND DISBURSEMENTS July 31, 1947

Cash on hand July 1, 1947		$38,981.97
Receipts:		
From dues	$21,549.38	
From enrollment fees	577.00	
Taxes deducted from salaries	36.80	
Associated Hospital Service, Administrative expense fund	2,041.54	
Interest of U. S. Bonds	62.50	
Refund of U. S. Bonds	66.60	24,333.82
		$63,315.79
Disbursements:		
Claims paid	$17,535.00	
Administrative expense	3,939.35	
Salary, Executive Director	200.00	
Secretary's fee	75.00	
Medical Adviser	75.00	
Attorney	75.00	
Auditing expense	300.00	
Advertising	80.51	
Printing and stationery	589.59	
Hospital records	14.00	
Collection expense	19.28	
Refunds	240.00	
Exchange	.50	
Taxes paid	147.20	
Dues	14.52	
State Insurance Department	6.00	
Miscellaneous	5.11	23,316.06
Cash on Hand, July 31, 1947		$39,999.73

Bank Balances, July 31, 1947	
Packers National Bank, Omaha	$38,882.77
First National Bank, Omaha	1,116.96
	$39,999.73

NEBRASKA MEDICAL SERVICE BALANCE SHEET July 31, 1947

Assets:			
Cash in bank		$39,999.73	
Premiums in process of collection		7,301.51	
U. S. Bonds (cost plus accrued interest)		50,083.05	$97,384.29
Liabilities:			
Accounts payable, Blue Cross		$ 4,177.60	
Accounts payable, monthly invoices		478.39	
Accrued payroll taxes		38.80	
Unreported		2,000.00	
Pending		4,800.00	
Accrued audit expense		100.00	
Unearned premiums		30,860.03	
		$42,454.82	
Reserve for Public Relations Campaign		$ 1,350.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	34,129.47		
		$53,579.47	
			$97,384.29

NEBRASKA MEDICAL SERVICE INCOME AND EXPENSE July 31, 1947

Income:	Month of July	7 Months to Date
From dues	$22,631.87	$131,589.88
From enrollment fees	577.00	5,106.00
Interest, U. S. Bonds	62.50	187.50
	$23,271.37	$136,883.38
Expense:		
Claims	$18,529.50	$ 98,221.00
*Administrative expense	4,034.81	22,422.13
Salary, Executive Director	200.00	1,400:00
Secretary's fees	75.00	525.00
Medical Adviser	75.00	525.00
Legal	75.00	525.00
Auditing	100.00	700.00
Advertising	260.58	2,062.08
Stationery	5.55	81.34
Printing	173.26	2,211.45
Home office travel and expense	22.55	562.71
Dues	14.52	75.87
Postage	-------	64.22
Taxes and licenses	8.00	72.41
Collection expense	19.28	61.98
Miscellaneous	22.50	92.31
	$23,615.55	$129,602.50
Net Gain or Loss	Loss $ 344.18	Gain $7,280.88

*Administrative expense—July	$4,177.60
Less refund for June	142.79
	$4,034.81

MEMBERSHIP SUMMARY—JULY, 1947

	Subscribers	Dependents	Total
1. Membership, July 1, 1947	12,674	17,522	30,196
Additions	1,115	1,468	2,583
Cancellations	330	311	641
Membership, August 1, 1947	13,459	18,679	32,138
2. Number of groups now enrolled			854
3. Number of groups added during July			69

JULY ENROLLMENT BY COMMUNITIES

ALLIANCE—34 groups, 292 members.
BEATRICE—7 groups, 73 members.
BROKEN BOW—1 member.
COLUMBUS—1 member.
FALLS CITY—2 groups, 21 members.
FREMONT—1 group, 8 members.
GRAND ISLAND—5 groups, 57 members.
HASTINGS—10 members.
KEARNEY—3 members.
LINCOLN—5 groups, 179 members.
NORTH PLATTE—1 group, 25 members.
OGALLALA—1 group, 23 members.
OMAHA—8 groups, 342 members.
SCOTTSBLUFF—3 groups, 59 members.
SIDNEY—2 groups, 17 members.
SUPERIOR—4 members.

NEBRASKA MEDICAL SERVICE CLAIM REPORT July, 1947

Number of claims paid	395
Number of services rendered	446
Females	232
Males	163
Subscribers	123
Dependents	272

Type of Service	Number	Amt. Paid
Anesthesia	16	$ 125.00
Appendectomies	33	3,300.00
Eye	12	134.00
Gall Bladders	5	750.00
General Surgery	26	1,512.00
Gynecology	24	2,385.00
Hemorrhoids	8	405.00
Herniotomies	8	800.00
Minor Surgery	58	441.00
Nose and Throat	7	200.00
Obstetrics	22	1,185.00
Orthopedics	33	1,406.00
Pathology	6	35.00
Radiation Therapy	2	35.00
Tonsillectomies	107	3,745.00
Transfusions	1	10.00
Urology	7	155.00
X-rays	48	493.00
Medical	23	419.00
	446	$17,535.00
Amount of claims in process of settlement		$ 4,800.00

YOUR STATE MEDICAL LIBRARY

SOME NEW ABSTRACT JOURNALS

Abstract journals, that is, journals devoted solely to abstracts, make up an important part of a research library's periodical collection. Biological Abstracts and Chemical Abstracts are but two well known examples. Some widely read journals, such as the Journal of the American Medical Association, contain abstract departments or sections in which the editors attempt to bring to their readers' attention a few significant articles published in other journals. Some of these sections are good, some are outstanding, but none pretends to cover thoroughly the periodical literature on a world wide basis. This is the function of the abstract journals.

Before World War II, German publishers (notably Julius Springer in Berlin), were the acknowledged leaders in the field of medical abstract literature. During the war, many of these journals disappeared and may never be revived. Some new publications with abstracts in English have appeared in the last five years to satisfy the need occasioned by the disappearance of the German journals. They will be described briefly in the following paragraphs.

The Washington Institute of Medicine, Washington, D. C., pubishes a group of quarterly abstract journals in ten distinct fields of specialization. They are: Quarterly Review of Dermatology and Syphilology; Quarterly Review of Medicine; Quarterly Review of Obstetrics and Gynecology; Quarterly Review of Ophthalmology; Quarterly Review of Otorhinolaryngology and Bronchoesophagology; Quarterly Review of Psychiatry and Neurology; Quarterly Review of Roentgenology and Physical Medicine; Quarterly Review of Surgery; and Quarterly Review of Urology. The abstracts are fairly lengthy and some include illustrations. The coverage for American and English literature is good. Author and subject indexes are compiled for each volume.

The British Medical Association has this year begun publication of two abstract journals, both under the direction of Hugh Clegg, editor of the British Medical Journal. They are: Abstracts of World Medicine, and Abstracts of World Surgery, Obstetrics and Gynaecology. The editors are attempting to provide world coverage of the more important articles in these subjects. The abstracts are grouped in broad classifications and are signed, but vary considerably in length. These journals, which are issued every month, began publication last January. There is an author index at the end of each number.

Ophthalmic literature is another English venture in the field of abstract literature. It is a quarterly, edited by Sir Stewart Duke-Elder, and published by the British Journal of Ophthalmology. The volumes are to run from June to June and annual indexes are to be issued. The abstracts are grouped in forty categories and are signed. In addition to the abstracts, each issue is to contain a review article on a subject of current interest. The first issue, June 1947, contains an article of 22 pages by Duke-Elder on penicillin in ophthalmology.

Excerpta Medica is an ambitious Dutch undertaking. According to the prospectus, their aim is "to provide pertinent and reliable abstracts in English of every article in every available medical journal in the world." Publication will be monthly in the form of fifteen separate sectional journals. The sections are: I. Anatomy, anthropology, embryology, and histology; II. Physiology, biochemistry, and pharmacology; III. Endocrinology; IV. Public health and social and industrial medicine; V. General pathology, pathological anatomy, and bacteriology; VI. Internal medicine; VII. Pediatrics; VIII. Neurology and psychiatry; IX. Surgery; X. Obstetrics and Gynaecology; XI. Oto-, rhino-, laryngology; XII. Ophthalmology; XIII. Dermatology and venereology; XIV. Radiology; XV. Tuberculosis.

As yet, separate journals for abstracts on anesthesia and on tropical medicine and hygiene are not to be published. However, anesthesia material will be included with Surgery, Section IX, while tropical medicine and hygiene material will be included in Sections V, VI, and XIII.

Further details, such as publishers and subscription cost of these journals, will be furnished to anyone interested. Please address your inquiries to the undersigned.

—PHILIP S. MOE, Librarian,
University of Nebraska,
College of Medicine.

New and Nonofficial Remedies, 1947 containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1947. Cloth. Price, postpaid, $3.00, pp. 749, Philadelphia: J. B. Lippincott Co., 1947.

Although the latest edition of New and Nonofficial Remedies has some eleven pages fewer than the 1946 book, its increase in size, due to the heavier paper used, and its change of color—dark green to bright red—combine to make a striking contrast with the earlier annual volumes. The book is now published by J. B. Lippincott and Company, though it is still issued under the direction and supervision of the Council on Pharmacy and Chemistry. Another innovation is the relegation of the statements of tests and standards to the back of the book, which makes the text more convenient and useable for the physician, for whom it is primarily intended. It is understood that supplements to the annual volumes will no longer be issued. The physician who is interested in current acceptances can keep track of these as the descriptions are published in the Journal A.M.A., or may inquire about them by addressing the Council's office at A.M.A.

headquarters. Several medical and pharmaceutical journals now carry lists of currently accepted products.

There appears to be no very extensive revision in the various general articles or chapter head discussions, although several new monographs have made their appearance and others have been revised to reflect current medical opinion. One notes the appearance of a new chapter, "Unclassified Therapeutic Agents," which includes the monographs on Gold Compounds and Iodine Compounds for systemic use. This is in line with the policy adopted some years ago of classifying accepted preparations according to pharmacologic action and therapeutic use.

Attention is called to the amplification and indexing of the section devoted to the statement of the Council's Rules. This should be of great assistance to manufacturers in the presentation of products for Council consideration and is no doubt inspired by the recent marked increase in the number of pharmaceutical concerns asking Council recognition.

The descriptions of some thirteen new preparations appear in this volume. This excludes, of course, brands or dosages of already accepted agents. Among those preparations noteworthy of mention are the pertusis vaccines and vaccines representing combinations of pertussis with diphtheria and tetanus organisms; the new histamine-antagonizing agent, Benadryl Hydrochloride Elixir (Diphenhydramine Hydrochloride Elixir); Furacin (Nitrofurazone) a new topical anti-infective agent; Streptomycin; Heparin Sodium; Parenamine, a new casein hydrolysate; Thiouracil, an antithyroid agent; Nahpuride Sodium (Suramin Sodium) a new trypanocide; and Tuamine (Racemic 2-aminoheptane), a new vascoconstrictor. One notes the increasing appearance of generic designations in conformance with the revised Council's rules on acceptance of agents bearing protected or trademarked names.

New and Nonofficial Remedies remains a most valuable and authoritative compendium of modern rational therapeutics. With successive editions, it becomes more useful and accessible to the physician and to all those interested in the use, preparation, or manufacture of drugs.

BOOK RECEIVED

Advances in Internal Medicine, Volume II. Editors· William Dock, M. D., Long Island College of Medicine, Brooklyn, N. Y.; I. Snapper, M. D., The Mount Sinai Hospital, New York, N. Y. Associate Editors: Tinsley R. Harrison, M. D., Southwestern Medical College, Dallas, Texas; Chester S. Keefer, M. D., Evans Memorial and Massachusetts Memorial Hospitals, Boston, Mass.; Warfield T. Longcope, M. D., Thorndike Memorial Laboratory, Boston City Hospital, Boston, Mass.; George R. Minot, M. D., Thorndike Memorial Laboratory, Boston City Hospital, Boston, Mass.; J. Murray Steele, M. D., Coldwater Memorial Hospital, New York University Division Welfare Island, N. Y. 642 pages, including index. Illustrated. Price $9.50. Interscience Publishers, Inc., 215 Fourth Ave., New York 3, N. Y.

DEATHS

Oliver Walsworth Everett, Lincoln. Born in Illinois in 1881, came with his family to Lincoln in 1891; graduated from Omaha Medical College in 1905. He began the general practice of medicine in Lincoln in 1905 and remained in that practice until his retirement in 1931. From 1938 to 1940 he was medical officer at Sun Valley, Idaho. He served in the Army Medical Corps during World War I, and during World War II when Dr. Juul Nielsen entered military service, Dr. Everett became acting superintendent of the Hastings State Hospital at Ingleside. At the end of the war he returned to Lincoln where he died July 22, 1947. Dr. Everett was active in the American Legion, Veterans of Foreign Wars, Masonic Lodge as well as other civic and fraternal organizations. Surviving are his wife, two daughters, one brother, Dr. E. A. Everett of Lincoln, and one sister.

Eugene M. Tyler, Auburn. Born in Tennessee in 1863, graduated from University of Tennessee in 1885 and located in Auburn the same year. He remained in active practice until 1943 when he retired on account of age and ill health. Dr. Tyler was known throughout the whole countryside as one of the oldest pioneer doctors. In addition to his professional activities, he took great interest in the Masonic Order, church and civic activities. He died August 5, 1947. Surviving are the widow and four children.

Joseph John Humpal, Omaha. Born in Nebraska in 1885, attended Wayne college, and in 1911 graduated from Creighton University School of Medicine. Following his internship he located in South Omaha where he built up a general practice. For a long time he was surgeon on the Omaha police force. He died August 9, 1947 following a short illness. Surviving are his wife, four sons and three daughters.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. R. R. Brady, Ainsworth, vacationed at Hidden Paradise Park.

Dr. Fay Smith, Imperial, vacationed at Estes Park, Colo., in July.

Dr. E. L. McCrea, Table Rock, celebrated his 82nd birthday on July 14.

Dr. F. W. Protzman is leaving Gibbon to make his home in Bellflower, Calif.

Dr. R. D. Bryson, Callaway. vacationed in Yellowstone National Park in July.

Dr. R. L. Spradling, formerly of Grand Island, has opened offices at Bridgeport.

Dr. Edwin F. Core has become associated with Dr. C. J. Manganaro at Kimball.

Dr. Blaine Carey left Talmadge to become associated with Dr. W. W. Carveth in Lincoln.

Dr. H. S. Andrews has returned to Minden after a brief fishing trip to the Wisconsin lakes.

Dr. Paul I. Ekart, graduate University of Nebraska College of Medicine, has located at Alma.

Dr. Y. W. Dorwart, McCook, spent three weeks vacationing in Wyoming and Colorado in July.

Dr. C. B. Hayes, who practiced at Kearney before entering military service, has located at Lyons.

Dr. W. G. Fletcher, Orchard, is convalescing at home from a major operation performed in July.

Dr. I. C. Munger, Lincoln, flew to Germany August 6 to visit his daughter. He will be gone a month.

Dr. Roy D. Sinclair, Chadron, was elected commander of the Bill Dowling Posts of the American Legion.

The sympathy of the Journal is extended to Dr. Esther I. McEachen of Omaha upon the recent death of her mother.

Dr. Oliver C. Nickum, Omaha, has been elected to membership in the American Academy of Tuberculosis Physicians.

Dr. F. B. Spieler has returned to Lincoln to practice, and Dr. Ray Hill of Wahoo has taken over the doctor's office in Milford.

Dr. D. L. Dieter, Syracuse, spent the month of June attending Gynecological Clinics, in Washington University, St. Louis.

Drs. Richard E. Garlinghouse and Samuel T. Thierstein, Lincoln, were certified by the American Board of Obstetrics and Gynecology in June.

Drs. John F. Gardiner of Omaha, Charles J. Caul of Kearney, Paul Barnes of Norfolk and Richard M. Still of Lincoln attended a post-graduate course in thoracic diseases at the University of Colorado School of Medicine in Denver, July 28-August 9. The course is sponsored by the American Trudeau Society, medical division of the National Tuberculosis Association.

HAVE YOU FILLED OUT THE VETERAN'S BLANK? IF NOT, DO SO NOW

COST OF OPERATING MEDICAL SCHOOLS FOR '47-'48 WILL BE $43,000,000

"The cost of operating the medical schools of the country, exclusive of their teaching hospitals, will be somewhat more than $43,000,000 for the academic year 1947-1948. Less than one third of this sum will be obtained from student fees," according to an editorial in the August 16 issue of The Journal of the American Medical Association.

The editorial states in part:

"The fact that during the coming year medical schools will receive more than $31,000,000 from endowments, general university funds, gifts and tax sources is good evidence of the determination of university administrators, trustees and legislators to continue to provide a program of high quality in the field of medical education. That such a policy results in a rich return to the people in health, happiness and economic productivity has been demonstrated by experience. It is important, however, to point out that at least one fourth of our medical schools are still operating on grossly inadequate budgets and that the efforts of many schools are limited by budgets that are but slightly less than adequate. The solution to the problem of how to increase the financial support of medical education is urgently sought in many quarters. During the coming year medical school budgets will be supplemented by grants totaling about $10,000,000 from foundations, governmental agencies and other extra university sources. Relatively few of these grants are designed primarily to strengthen educational programs. The majority are awarded for the prosecution of specific research problems. It cannot be denied that many grants for research usually benefit the educational activities of the institution receiving them. However, a quesion that could be raised is whether the fundamental cause of medical education and medical science would be better served if more grants were available for the specific purpose of helping schools strengthen their educational activities. Those responsible for establishing and awarding grants should consider this problem . . . A policy of giving more direct financial support to the educational activities of medical schools can be fully justified. As effective research is the product of trained minds whose scientific curiosity has been stimulated, it is reasonable to believe that a greater investment by foundations and similar groups in improving the fundamental training of physicians as a class will ultimately bring a much larger return in scientific knowledge and scientific practice than will the expenditure of funds almost exclusively in support of the special activities of a few selected investigators."

POLIOMYELITIS

Diagnosis of infantile paralysis can usually be made within 24 hours of the onset of the disease, according to John F. Pohl, M. D., of Minneapolis, and treatment should begin immediately in order to relieve the discomfort of patients and to minimize crippling.

Writing in the July 26 issue of The Journal of the American Medical Association, Dr. Pohl, who is from the Elizabeth Kenny Institute, states that "an analysis of 1,125 cases of poliomyelitis treated in Minneapolis during the 1946 epidemic reveals that the symptoms and observations are sufficiently characteristic to enable the diagnosis to be established in most patients within 24 hours of the onset. The study also discloses that paralysis is not a useful diagnostic sign because paralysis or weakness of the muscles is not a common early event and in a considerable number of cases does not occur at all. To await the appearance of paralysis to confirm the diagnosis or to begin treatment is inadvisable."

Of the 1,125 cases, 736 or 65.4 per cent progressed to paralysis of some degree within 15 days of onset but 389 or 34.6 per cent did not show paralysis at any time. Sixty-eight patients or six per cent died.

Symptoms of the first 24 hours are: headache, fever, nausea, vomiting, loss of appetite, stiff neck, stiff back, painful arms and legs and general malaise with listlessness.

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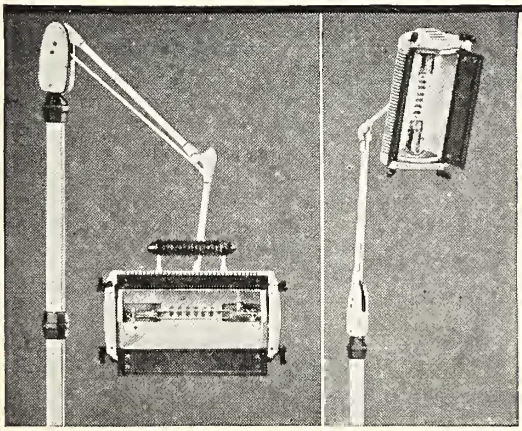

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TUBERCULOSIS PATIENTS REACT WELL TO PURIFIED STREPTOMYCIN

Four New York doctors report that reactions to highly purified streptomycin on long-continued administration are sufficiently low to justify the use of the drug in the treatment of most forms of tuberculosis.

This investigation was conducted under the direction of the National Research Council Committee on Chemotherapeutics and Other Agents, by Drs. Robert F. Farrington, Harriet Hull-Smith, Paul A. Bunn and Walsh McDermott.

Writing in the June 21 issue of The Journal of the American Medical Association, the investigators point to four general types of toxic reactions to the drug among 16 tuberculosis patients; histaminie or allergic reaction in which poison is released by the tissues, characterized by flushing, headache and an abrupt fall in blood pressure; various forms of anaphylaxis or hypersensitivity to the drug; neurologic disturbance with occasional deafness, and kidney damage.

However, in only two of the 16 patients, treated for 120 days, was it necessary to interrupt the administration of the drug, and it was possible to resume treatment eventually in both of these patients.

"On the basis of the present investigation," write the physicians, "it appears that the toxicity of highly purified streptomycin is sufficiently low to justify its long-continued administration to patients with actively progressing tuberculosis and other comparatively serious infections. Conversely, it appears that streptomycin should not be employed in the treatment of relatively benign (mild) infections, such as recently developed minimal tuberculosis or chronic brucellosis (undulant fever), until the question of possible late effects resulting from the use of the drug can be determined."

The Council on Foods and Nutrition of the American Medical Association assists in keeping the practicing physician informed about the important advances in the field of foods and nutrition.

The Biographical-Directory Department of the American Medical Association maintains a record of nearly all the physicians who served with the Army and Navy during World War II.

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The Nebraska State Medical Journal

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EDITORIAL

THE NARCOTIC ADDICT—AN OLD PROBLEM

Below is a copy of the Nebraska law which pertains to the administration of narcotics to addicts. It is published on the recommendation of the Nebraska Division of the U. S. Department of Internal Revenue, Bureau of Narcotics. The law, as will be noted, was passed in 1943, and as frequently happens, was filed away in the Archives of the State without comment. This Journal received neither a copy of the bill nor notification of its introduction or passage, until a few days ago.

The drug addict is an old and distressing problem. Not only to the law enforcement officer, but even more so to the physician to whom the victim of the habit applies for care. The narcotic agent's only duty is to enforce the law where the professional and moral obligations of the doctor lie in helping the patient rehabilitate himself in an environment and under conditions which originally operated in inducing the habit. These obligations however, do not constitute ground for disobeying the law. In fact the conscientious patient who makes a sincere effort to rid himself of his addiction should offer no objection to the mandatory consultation among physicians, and should be considerate enough of his doctor's legal obligations. As to the vagrant who habitually preys on the medical profession, faking symptoms to obtain a "shot" from each doctor who fails to realize that he is being victimized, he has our sympathy, but for his own good, and that of the public, he must be dealt with in accordance with the law.

NARCOTIC DRUGS

Sec. 28-427-R. S. Nebr., 1943. Narcotic Drugs; Administration to Addicts; Record.

It shall be unlawful for any duly licensed practicing physician to prescribe or for any duly licensed practicing physician, dentist, or veterinarian to administer in any manner or form any cocaine, alpha or beta eucaine, morphine or opium, or any salt, compound, or derivative of any of the foregoing substances, or any preparation, product or compound containing any of the foregoing substances or any of their salts, compounds or derivatives for or to any person addicted to the habitual use of cocaine, alpha or beta eucaine, morphine or opium or any salt, compound, or derivative of any of the foregoing substances, or any preparation, product or compound containing any of the foregoing substances or any of their salts, compounds, or derivatives, except that a reputable and duly licensed physician may personally administer to a patient who is an habitual user of such drug or any of them, necessary doses thereof when it has been in good faith determined by two reputable and duly licensed practicing physicians in consultation to be absolutely necessary in the medical treatment of such patient; in which case the physician administering such drug or any of them shall make and keep a record in writing of the name and address of the person to whom such drugs or any of them were administered, the date administered, the form and quantity of drug administered, the name and address of the consulting physician, and the date and place of consultation. Such record shall be retained and preserved within the State of Nebraska, and the County where administered, for a period of at least two years. And shall always be open for inspection by the Department of Health, State, County and City Health Officers, County Attorneys, Grand Jurys and all officers of the law, and by agents appointed by them or any of them for the purpose of making an inspection. The record shall be made at the time of each administering of such drugs, or any of them, and a copy of the record shall within five days after each administering of such drugs or any of them, as in this Section provided, be filed with the County Attorney of the County in which the administering took place by the physician administering the drugs or any of them, and shall have affixed thereto the signature and address of the administering physician.

ANNUAL MID-WEST SESSIONS OCTOBER 27, 28, 29, 30, 31

There is little we can say which will enhance our readers' appreciation of the nature and scope of the Fifteenth Annual Assembly of the Omaha Mid-West Clinical Society. The program, published elsewhere in this issue, speaks for itself. Again we have an array of speakers who represent the best in every phase of medicine and medical practice. The Journal again feels proud to express its congratulations on the excellent achievements of the Omaha Mid-West Clinical Society. Our best wishes for a record Assembly!

SIGN THAT AGREEMENT!

Members of the Nebraska State Medical Association recently received a letter, together with a proposed agreement from the Nebraska Medical Service, signed by President G. E. Charlton. The object of the agreement as was explained is to remove the Medical Service from the category of commercial insurance companies, to broaden the scope of the Plan, and to safeguard its financial interests in the event of an economic recession. This feature was discussed at length during the sessions of the House of Delegates of our Association in May, and it appeared that this is the only way in which the Nebraska Medical Service could endure as a functioning organization in times of depression.

As to the importance of its survival, the Journal has pointed out, on many occasions in this section, that at the present time voluntary plans seem to be the only successful challenge against federal regimentation of the American practicing physician.

Please return the signed agreement today.

LAST CALL FOR VETERANS' QUESTIONNAIRES

There are still a few physician veterans who have not yet sent in their questionnaires, and some who have failed to enclose a photograph. The cuts are now being made up and unless photographs are received within the next day or two the copy will be published without cut.

If you have lost the questionnaire, wire the Nebraska State Medical Journal, Mezzanine 3, Omaha, or call Ha-5115 and a questionnaire will be sent to you promptly.

IDIOSYNCRASIES TO NEW DRUGS LIMIT GENERAL USE

One of the most challenging problems in medicinal therapeutics, according to an article in the September 20 issue of The Journal of the American Medical Association, is that of "idiosyncrasies" to new drugs.

Carl A. Dragstedt, of Northwestern University Medical School, Chicago, points out:

"Just as the physical examination of a patient usually fails to reveal anything informative as to the risk of idiosyncracy on the part of a particular patient, so does the chemical examination of a drug usually fail to inform the physician of the potentiality that it may have. A representative of one of the drug firms told me, half in jest but half in earnest, that he was about ready to conclude that the most economical procedure with respect to a new drug would be to determine whether a large number of people could take it without untoward reactions before spending a lot of money in the laboratory and clinic to determine what it might do.

"Consider the course of events attending the advent of a new drug. It is synthesized by the chemists. It undergoes various screening tests as to its actions and effects by the pharmacologists. Its toxicity is surveyed in some laboratory animals. It is destributed for controlled clinical investigation. It shows some therapeutic merit. It is released for general therapeutic trial and then—usually within three or four months—reports describing its unexpected and untoward reactions begin to appear. Was this not the story with dinitrophenol, the various sufonamide compounds, penicillin, thiouracil, trimethadione ("tridione" N.N.R.) and many others? . . . This is obviously an unsatisfactory state of affairs begging for a solution. The medical profession has largely abandoned such drugs as dinitrophenol, aminopyrine and cinchophen in cases in which the therapeutic need does not warrant the therapeutic risk and has had its use of many other drugs definitely circumscribed."

An 'idiosyncrasy," according to the writer, means "a qualitative abnormality in the response to drugs, signifying such effects as urticaria, neuritis, jaundice, anemia, leukopenia, and the like, which some drugs produce in some persons but do not produce in the majority, irrespective of the dose employed."

Some reactions, such as hives, skin inflammation and asthma, seem to be allergic; others do not. Dr. Dragstedt emphasizes that the two important aspects of the problem of idiosyncrasy are, however, "the ability to forecast the likelihood of idiosyncrasy on the part of a given drug, and the ability to control or treat the reactions that occur. With respect to the latter it seems clear that the general methods of preventing and treating allergic reactions would be different from those appropriate to the nonallergic responses. With respect to the former there are hints . . . that the propensity of a drug to produce untoward reactions in man might be determined by a more exacting study of its effects in experimental animals . . . Perhaps with the aid of a complete menagerie, the physician might learn to foretell all the possibilities."

HAVE YOU FILLED OUT THE VETERAN'S BLANK? IF NOT, DO SO NOW

Carcinoma of the Esophagus and Cardia*

W. E. ADAMS, M.D.**
Chicago, Illinois

Esophageal cancer and cancer of the cardia producing esophageal obstruction comprise approximately 15 per cent of all malignant tumors. This means that approximately 2500 people die of these tumors each year.

In a survey comprising 124,827 autopsies from 42 German pathological institutions between 1925 and 1933, Dormanns(1) found it was surpassed in frequency only by carcinoma of the stomach, lung and rectum. Of 23,139 deaths due to malignancy in patients over twenty years of age, 8 per cent were due to this tumor. Statistics reported in America show carcinoma of the esophagus surpassed only by carcinoma of the stomach in frequency of malignant tumors of the gastrointestinal tract. Further importance of this lesion is indicated by the fact that over 60 percent of our personal cases were under 60 years of age and approximately 20 percent were under 50.

With the advancement made in thoracic surgery in general, it was inevitable that carcinoma of the esophagus would ultimately yield to surgical treatment. Although a successful resection of the thoracic esophagus for carcinoma was reported in 1913 by Torek(2), this remained an isolated case until a decade ago. With the revival of interest in this problem in 1938 much clinical and experimental study has been made with resultant striking progress in the surgical treatment of these lesions. Unfortunately, however, early recognition of the neoplasm is almost as infrequent today as it was nine years ago. The lack of a high percentage of early diagnoses is due chiefly to the insidious onset of esophageal obstruction which is given little thought by the patient, or even the physician, until the lesion at times has become far advanced. When the laity as well as the profession are made to realize that this tumor is one of the most frequent causes of dysphagia and should be suspected in all patients having difficulty in swallowing, more lesions will be recognized at an early stage.

CORRELATION OF PATHOLOGICAL PICTURE WITH CLINICAL COURSE

Carcinoma of the esophagus usually produces early symptoms by obstructing the passage to the stomach. In some cases, however, obstructive symptoms may be preceded by those caused by the invasion of adjacent structures or by metastases.

Classification of tumors. Most primary malignant tumors of the esophagus are located in either the middle or lower one-third of the organ, only about 10 per cent being in the upper one-third. Their gross appearance varies somewhat, three principal forms being recognized viz: Scirrhous, medullary and papillary. This classification bears no relationship to the histological appearance of the tumor, the majority (95 per cent) being squamous cell in type. All other cell types (adenocarcinoma, basal-cell carcinoma) are usually located in the lower part of the esophagus. The above gross characteristics tend to influence to some degree the clinical picture produced by the tumor(3).

In the case of the scirrhous type there is first thickening of the esophageal wall forming a nodule or a tubercle. Early extension is in the circumferential direction and later in the, longitudinal. Thus with its circular growth there results a marked narrowing of the lumen with rapid production of a severe grade of obstruction of the passage-way. The lining mucosa in this type may show relatively little involvement for sometime, and on esophagoscopy no ulcerating surface is visible. If a biopsy is made of only the superficial tissue, no tumor is seen, and the lesion is apt to be diagnosed as a benign stricture. This possibility should be kept in mind, and sufficient tissue removed on repeating the biopsy for making a correct diagnosis. Since carcinoma is far more common than benign stricture of this organ, the possibility of the former must not be discounted on the basis of a single negative biopsy. (See Fig. 1).

The medullary type is likely to become much larger than the scirrhous before producing high grade stenosis. This is due to the fact that the central portion becomes necrotic and ulcerated, thus relieving to some degree the obstruction to the passage. In this way the patient may at one time have a considerable amount of dysphasia followed by a period of only mild symptoms until further growth again produces an increased obstruction. This type is more apt to extend for some distance in its longitudinal growth before therapy is instituted.

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*From the Department of Surgery of the University of Chicago.

**Read before the Annual Assembly of Nebraska State Medical Association, April 29, 1947.

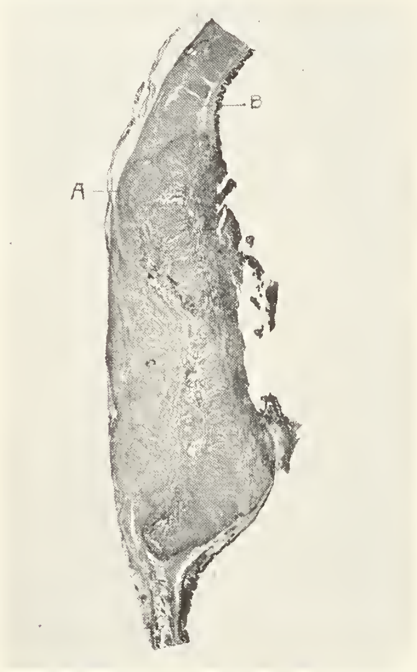

Fig. 1. Microscopic section of a squamous cell carcinoma of esophagus. Note invasion of entire wall of the organ by the tumor at A, thus if destroyed by irradiation no wall would remain. Resection was followed by an uneventful convalescence. Note marked hypertrophy of muscle of esophagus above tumor at B, resulting from obstruction of the passage by the tumor. X 1.3.

The third type, namely papillary carcinoma is less commonly seen, and is characterized by pendunculated growths or a cauliflower-like development usually accompanied by a foul odor.

The symptomology of carcinoma of the esophagus is considerably influenced by the location of the neoplasm. Because of its close proximity to other important organs such as the lower trachea, left primary bronchus and aorta when it is located in the middle third, the tumor is apt to involve these structures by direct invasion before marked dysphasia is manifest. Occasionally pain due to involvement of adjacent structures is more prominent than symptoms due to obstruction. Because of the likelihood of involvement of these parts, the chances of operability as well as the outlook for a long-time cure are not as good as that for tumors located in the lower one-third of the esophagus where the lesion is surrounded by loose areolar tissue. The pleura or the lung may also be invaded; however, these structures are not as intimately related to the esophagus as the organs located in the middle one third, and thus the clinical picture produced is usually on the basis of obstruction. In some cases the lesion may also involve the cardiac end of the stomach and frequently cannot be differentiated from carcinoma arising in the cardia. This is of little consequence since the management is the same in either instance(4).

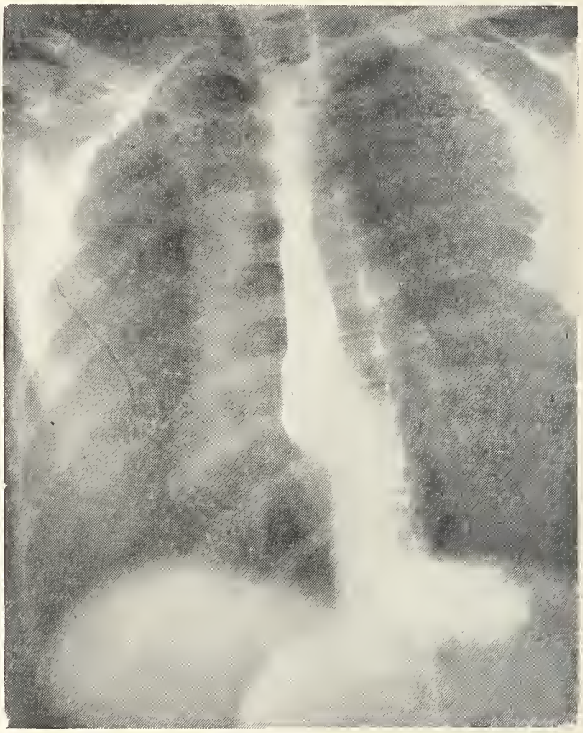

Fig. 2. Preoperative x-ray of chest following ingestion of barium, showing an obstructing lesion of the lower one-third of the esophagus. The tumor extended approximately 1½ inches higher than the level suggested by the x-ray.

A characteristic history and clinical course is seen in the following case:

A 55-year-old white man came to the clinic complaining of difficulty in swallowing food for the previous nine or ten months. During the latter two or three months of this period he had a pain in the epigastrium on swallowing solid food and had a tendency to regurgitate food that had not passed into the stomach. During the entire period of ten months he had lost approximately 35 pounds in weight and a great deal of strength. The difficulty in swallowing at first had been only for solid food. However, in the latter part of this period he had difficulty in swallowing liquids, also. There had been no other complaint. On examination the patient was markedly emaciated and dehydrated, but did not appear acutely ill. The emaciation was so marked that loops of bowel could be identified beneath the abdominal wall. His blood pressure was

128/74 millimeters of mercury. The rest of the examination was within normal limits.

Laboratory tests revealed a hemoglobin of 14.0 grams, a white blood count of 11,000 and a normal urine. Fluoroscopic examination of the chest showed only bilateral emphysema. A barium study of the esophagus revealed marked obstruction at the junction of the middle and lower one third. At this point a ragged mass could be seen. Lower down at the gastroesophageal junction the longitudinal folds were normal. (Fig. 2). The x-ray diagnosis was carcinoma of the esophagus.

During the next ten days the patient was prepared for operation by correction of the marked dehydration with saline and glucose administered intravenously.

The operation was done under ethylene-oxygen-ether anesthesia, with the positive pressure mask technique. The tumor involved a 4-inch segment of the esophagus between the arch of the aorta and diaphragm. This necessitated a high resection with anastomosis to the stomach above the arch of the aorta. The patient had an uneventful convalescence and is apparently free of recurrence or metastases 2½ years following operation. (Fig. 3).

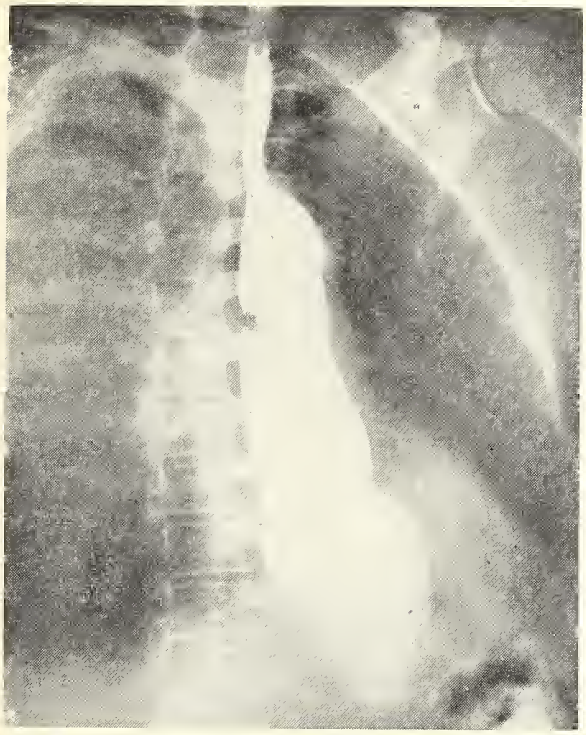

Fig. 3. Postoperative x-ray following ingestion of barium and showing approximately four-fifths of the stomach brought up into the pleural cavity for anastomosis with the upper esophagus following resection of the carcinoma. The anastomosis is shown just below the substernal notch.

DIAGNOSIS

The diagnosis usually presents little or no difficulty in the majority of patients. The first symptom noted is difficulty in getting food to pass into the stomach. The patient complains of it "sticking" some place beneath the sternum. At first only solid food gives rise to these symptoms, but as the degree of stenosis increases, even liquids are swallowed with some difficulty. In a much smaller group of cases symptoms, such as pain or discomfort due to involvement of adjacent structures, may be present before the symptoms of dysphagia are experienced. Also in another small group, symptoms caused by metastases may be present in the early stage of the tumor. However, in the majority of patients, involvement of the adjacent structures by direct extension and metastatic lesions are unlikely when symptoms produced by esophageal obstruction are first experienced.

Most important in the diagnosis of this condition is flouroscopic and x-ray examination, and esophagoscopy with biopsy. Following a barium swallow, flouroscopy reveals a constriction of the lumen with an irregular tract through the central portion of the tumor. In some cases there is dilatation above the point of obstruction; however, this is much less marked than in cases of obstruction due to benign lesions. The above flouroscopic findings are substantiated by roentgenological films.

On esophagoscopic examination the obstruction to the passage is quite abrupt although the mucosa may or may not be intact according to whether the lesion is of the scirrhous or the medullary type. There is usually a pale, irregular lining which if ulcerated, bleeds easily. A biopsy should include a full thickness of the mucosa in order to be sure of obtaining tumor which may have extended up beneath it(5). (Fig. 1). If these diagnostic procedures are utilized when symptoms of dysphagia are first noted, a high percentage of patients would be operable at that time.

Other lesions which produce dysphagia and must be differentiated from carcinoma are esophageal diverticulum, benign stricture of the lower esophagus, benign tumors of the esophagus and cardiospasm (achalasia). Loss of weight and strength, and a tendency to dehydration may be produced by all of these lesions and therefore is of little differential value. However, the characteristic picture seen on flouroscopic and roentgenologic examination following the ingestion of barium, and the information gained from esophagoscopy are sufficient for making a correct diagnosis.

TREATMENT

In spite of the large experience gained in the past decade with the surgical management of esophageal carcinoma, our knowledge of its characteristics has not yet progressed sufficiently for the determination of operability in all patients on the basis of history, physical and laboratory examinations and the diagnostic methods now available. In some patients, symptoms are minimized in the early course of the lesion, and a history of three months duration represents only a part of the duration of the tumor. Loss of weight usually results chiefly from lack of ingestion of sufficient food, and is not a true indication of spread of the tumor beyond the operable stage. Where obstruction has been less severe, the general condition of the patient may remain relatively good with little loss in weight or strength; the tumor, however, may already have involved adjacent structures or given rise to distal metastases. Thus at the present time, unless there is positive evidence of distal metastases, or extensive invasion of adjacent structures, as indicated by a paralyzed diaphragm or vocal cord, exploratory thoracotomy is indicated.

Preoperative preparation: Because of the degree of severity of undernourishment and dehydration which attends obstruction of the esophagus, a thorough preparation for operation is important. The diet should be limited to liquids. Malnutrition and dehydration is treated by both oral and intravenous administration of fluids containing physiologic saline and nourishment. A preliminary exploration through the abdomen and a jejunostomy prior to resection of the esophagus is usually unnecessary. Since many of these patients are somewhat anemic, transfusion of blood may be indicated. Application of these measures prior to the operation has contributed much to the success of surgical management.

Postoperative pulmonary complications should be guarded against by a thorough search for and treatment of upper respiratory infections. Attention should also be given to oral hygiene. The use of sulfonamides, and more recently penicillin, prior to and following the operation have reduced the hazards of both pulmonary infections and infection of the mediastinum due to soilage at the time of surgery.

OPERATION

The patient is placed on the right side. Intravenous administration of physiological saline solution is begun and citrated whole blood in the amount of 1000 to 1500 cc. in addition to 500 and 1000 cc. of saline is given during the operative procedure. By the use of an adequate transfusion, the blood lost at operation is replaced simultaneously, thus preventing the development of shock and its serious consequences. The prevention of shock in this manner is much to be preferred to its treatment after it has already developed.

Anesthesia: We routinely employ ethylene-oxygen ether anesthesia administered under mild positive pressure through a snug fitting face mask. This is usually preceded by morphine gm. 0.015 and calcium nembutal 0.27 (per rectum) approximately one hour before the operation. The lack of understanding of altered cardiorespiratory function in the presence of a surgical pneumothorax was one of the main factors in the delay of intra-thoracic surgery until the past two or three decades. Mild positive intra-tracheal pressure (4 to 6 mm. of mercury) sufficient for stabilizing the mediastinium and yet low enough to allow some relaxation of the lung on the side of operation is desirable for intrathoracic surgery.

Operative Technique: The development of the operative procedure now usually employed in the resection of carcinoma of the esophagus and cardia was greatly aided by animal experimentation carried out in conjunction with clinical experience(6, 7, 8, 9, 10). Although formerly resection of the esophagus was not accompanied by re-establishment of the continuity of the digestive tract, this procedure at the present time is very little employed (Torek). In the majority of cases the involved segment is removed, followed by a gastro-esophageal anastomosis. Principles established by animal experimentation which have contributed to the safety of this procedure include the following: (1) the anastomosis should be made with two or three rows of interrupted sutures. When continuous sutures are used, some degree of stenosis is apt to result. (2) Tension on the suture line is one of the major causes of leakage. Thus the stomach should be secured by sutures to the pleura to relieve any pull on the line of suture. (3) Preservation of the blood supply of the cut end of the esophagus should be kept in mind by mobilizing no more of this organ than is necessary for the resection and anastomosis.

As more experience was gained with the resection and anastomosis type of operation, its use was extended to include tumors in the middle and lower part of the upper third of the esophagus. Since 90 per cent of these tumors occupy the esophagus from the level of the arch of the aorta downward, the anastomosis type of operation is applicable in all of these tumors when they are resectable. In those patients where the tumor is located near the arch of the aorta greater exposure is needed, and more extensive mobilization of the stomach is necessary for its elevation to a higher level in the thorax. The esophagus is divided at the junction with the carida, the latter being inverted with two rows of sutures. The anastomosis is then made between the fundus of the stomach and the upper cut end of the esophagus. At times removal of the spleen may facilitate mobilization of the stomach. Since most of these tumors metastasize downward to the cardiac glands and lymph nodes in the retroperitoneal tissue surrounding the left gastric vessels, care must be taken to remove these structures in all cases. Where the tumors are located in the region of the arch of the aorta, regional mediastinal lymph nodes are likely to be involved and should be removed. Following resection of the tumor, the diaphragm is closed about the stomach. The lungs are then re-inflated and the chest wall closed in layers.

Postoperative Care: After closure of the wound, the residual air in the pleural space is removed by aspiration through a catheter, and on return of the patient to the ward, continuous aspiration of the pleural cavity is maintained for forty-eight to seventy-two hours. This encourages primary healing without infection. Following operation, transfusion of additional blood may be necessary in the event that the blood lost at operation was not sufficiently replaced. Oxygen therapy, usually by the oro-pharyngeal catheter method is employed as long as indicated, usually for the first 24 to 48 hours after surgery. Supportive measures should include nourishment by intravenous and subcutaneous routes and maintenance of water and mineral balance. The patient is allowed to take water by mouth starting on the fourth or fifth day, and a full liquid diet allowed soon thereafter. By the end of two weeks a soft to a general diet is tolerated. Penicillin administered in doses of 40,000 units intramuscularly every three hours is usually continued for the first seven to ten days. This, no doubt, decreases the incidence of serious postoperative pulmonary complications, and may help to control infection of the mediastinum resulting from soiling during operation.

The patient is assisted to a sitting position on the edge of the bed twice daily beginning twenty-four hours after operation and is allowed in a wheelchair by five to seven days. This rapid mobilization helps to maintain good circulation, and obviates the development of weakness due to lying in bed for longer periods of time. It also aids in the prevention of pulmonary complications caused by stagnation of bronchial secretions.

RESULTS

In a review of the literature only 14 successful resections for carcinoma of the esophagus were found reported up to 1934. Torek reported the first successful resection in 1913. All except Torek's case expired within a short time of recurrences or metastases. From 1934 to 1938, 15 additional cases were reported and in the following two years, 34 successful resections were added(11).

The first successful one-stage transthoracoabdominal resection of a carcinoma of the lower esophagus was made in 1938 by Dr. D. B. Phemister(12). This patient is living without evidence of recurrence or metastases nine years following the operation, thus showing the possibility of a long-time cure by surgical treatment of this tumor. Since that time several hundred resections have been reported, thus demonstrating the rapid progress in this field of surgery.

As in the case of many malignant tumors, during the developmental stage of surgical treatment, the mortality was quite high, usually ranging around 50 per cent. With improvement in the prevention of shock and infection, the risk of the operation has been considerably reduced. Statistics on results of therapy are usually misleading because they are influenced by various factors. This probably explains the marked discrepancy in the risk of the operation as reported by various authors. For example, in 1944 Garlock reported 29 resections with 13 deaths, or a mortality of 44.8 percent(13). The mos frequent cause of death was cardiovascular accidents. At the same time Churchill and Sweet reported 50 resections with 6 deaths, or a mortality of 12 per cent(14). The majority of reports show a mortality rate ranging somewhere between these two extremes.

In a review of our cases it was found that Dr. Phemister and I had expored 96 patients, finding 51 resectable. There were 15 deaths or a mortality of 29.4%. In the last 26 resections reviewed there were two deaths or a mortality of 7.7%. In my personal experience with 47 consecutive cases, 17 were resected with two deaths. In four additional cases, relief of obstructive symptoms was obtained by esophago-gastrostomy above the point of obstruction. One additional patient died following exploration only. The cause of death in the explored case, a man 78 years of age, was pulmonary embolism. Of the two deaths following resection, one was a man of 69 who died on the twelfth day of coronary thrombosis. The other, a woman of 62, expired on the 21st day of cardio-respiratory failure.

Much of the success in the treatment of carcinoma of the esophagus and cardia has been due to the proper preparation of patients by the administration of fluids, electrolytes and blood, and by the replacement of blood loss during the operation. Support of the circulation and adequate oxygenation by a properly administered anesthetic has also been of paramount importance. Chemotherapy should also be credited with saving some of these patients.

In spite of the progress made in the surgical management of this tumor many patients are denied curative treatment because of delayed diagnosis. This can be considerably improved through education of the laity and the medical profession as to the frequency of the tumor and the availability of successful surgical therapy if the diagnosis is made during an early stage of the disease.

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Every now and then, a type of news story that does the medical profession no service splashes into print. We refer to the story of a family in life-or-death need of drugs they can't pay for. With the aid of poignant photos and headlines, the newspaper makes its appeal dramatic and touching. The funds raised in such campaigns are sizeable.

What bothers us is the indignation over "the high cost of medical care" that these stories often whip up. In California recently, a newspaper put on a pass-the-hat campaign for a nephritic child. The youngster needed serum albumin to save his life; his family couldn't scrape up the $12 per ampule. In seven days the paper raised $2,000.

This incident did little to help medicine's public relations. A news commentator was heard to say: "It couldn't happen under compulsory health insurance." Even though doctors have about as much control over drug prices as over the seventh race at Santa Anita, the profession took the rap.

Every county has channels for routing drugs, medicines, and surgical care to persons of modest means. Medical societies sometimes miss a good bet by not keeping these channels widely publicized. Every physician ought to know where to send cases in urgent need of drugs or services they can't afford.

Certainly it does patients a favor to spare them the hot glare of tabloid publicity. And each time it nips such cases in the bud, medicine gives its own public relations a shot in the arm.—Medical Economics, August, 1947.

Peritoneal Irrigation of Uremia

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Recent success has been achieved by a new treatment of uremia, and in order to familiarize others with this method of treatment, two cases of its successful use will be cited at this time. Fine, Frank, and Seligman of Harvard first wrote about this method in 1946. They reported on seven cases of uremia which were treated by intraperitoneal irrigation with good results. Hence, upon treating a case of anuria, developed following a blood transfusion, we employed their method of freeing the abdominal cavity of urea nitrogen products by washing it with copious amounts of physioligical solution.

Experimentally, the procedure of washing the peritoneal cavity in dogs has proven 40 to 75% effective in carrying on normal renal function, and when carried out in humans it has been able to eliminate the chemical and clinical evidence of uremia.

Ordinarily, the kidneys function to excrete twenty to thirty-five grams of urea from the body each day. If something happens to prevent the kidneys from excreting their products, these products are retained within the body and gradually increase in concentration until the condition is corrected or the patient dies. Various methods have been tried to stimulate kidneys into action once they have failed. Pilocarpine, sweat packs, diathermy, salyrgan, hypertonic glucose solutions, changing electrolyte balance in the body, decapsulation of the kidney, and many other remedies have been used with little or no success once the kidney has shut down.

If the kidneys have suffered a functional insult by sulfa drugs, blood transfusions, or some toxic substance, the resultant condition should be minimized until a means is found to combat the uremia and the kidneys are so recovered as to again carry the load of excreting urea products. This is the aim of the intraperitoneal irrigation, namely, to prevent azotemia from reaching a point so as to cause death before the kidneys can again resume function, and also to reduce the azotemia to a point where reparative processes can be carried on at a rate not impeded by a uremic condition, thereby allowing the kidney to resume function at an earlier date.

The intraperitoneal irrigation method for treating uremia is not feasible in all cases. Only in those cases in which near normal renal function can be expected within two or three weeks time should it be used; it would not be practicable in cases where the kidneys will never improve.

Dr. Kolff of Holland, in his thesis of January 1946, suggests a method for the removal of urea products which is different from that offered by Fine, Frank, and Seligman. Kolff's treatment is as follows: he heparinized a patient, tied a needle in an artery, and allowed the blood to run out through a cellophane tube 23 mm. wide and 50 yards long which was immersed in a tank containing a physiological solution.

This cellophane tubing acted as a dialyzing membrane, allowing crystaloids to escape. Included in the crystaloids were the nitrogenous waste products of the body. The blood was then run back into a vein free of its urea products. This method proved satisfactory for Dr. Kolff and others, but involves a rather formidable procedure and seems more technically difficult than the method to be presented here.

Fine and his co-workers at Harvard have been using the whole peritoneal cavity as their dialyzing membrane which probably has many times greater surface than Dr. Kolff's yards of cellophane tubing. When considering the amount of surface there is in the parietal and visceral peritoneum, one realizes that there are many square inches of the finest of dialyzing membranes. Fine irrigated the peritoneal cavity with an abundance of sterile, modified physiological solution, added penicillin and sodium sulfadiazine to help prevent peritonitis, and heparin to prevent fibrin from adhering to and clogging the apparatus. Streptomycin may become a useful antibiotic in this procedure.

Dr. Alton Ochsner of New Orleans believes that a satisfactory amount of nitrogenous products can be removed by copious gastric lavage, and that peritoneal irrigation is too dangerous. He used up to twenty liters daily in an effort to wash out urea from the stomach with some success. Other investigators, however, do not believe this method adequate in itself.

Following Fine's and Ochsner's suggestions, we used continuous intraperitoneal irrigation and continuous gastric lavage on the following cases with a two-fold purpose in mind. First, to prevent azotemia from reaching a point as to cause death before the kidneys could function again, and second, to reduce the azotemia to a point where reparative processes could be carried on at a faster pace, and thereby allow the kidney to resume function at an earlier date.

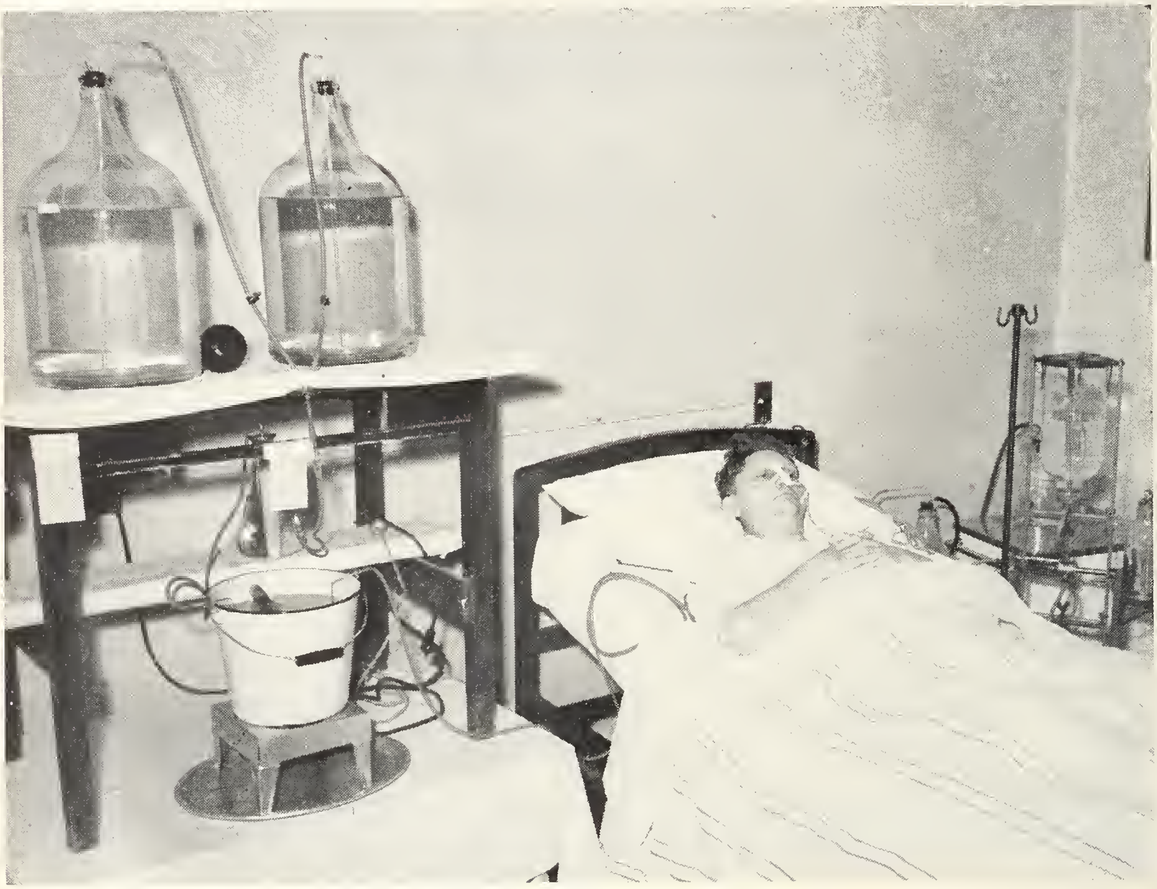


Fig. 1. Patient receiving Intraperitoneal Irrigation.

CASE I

On November 25, 1946, a 36 year old white male (Figure 1) entered the hospital because of diarrhea and abdominal pain. The diarrhea had been existent since 1943, at which time he was hospitalized and given seven blood transfusions. He was readmitted in 1945 because of abdominal pain. He was operated on, and his appendix removed. No other pathology in the abdomen was noted.

Present history: Frequent stools, six a day containing blood and mucous. Nausea and vomiting for two weeks, unable to retain food or liquids. Lost twenty pounds of weight.

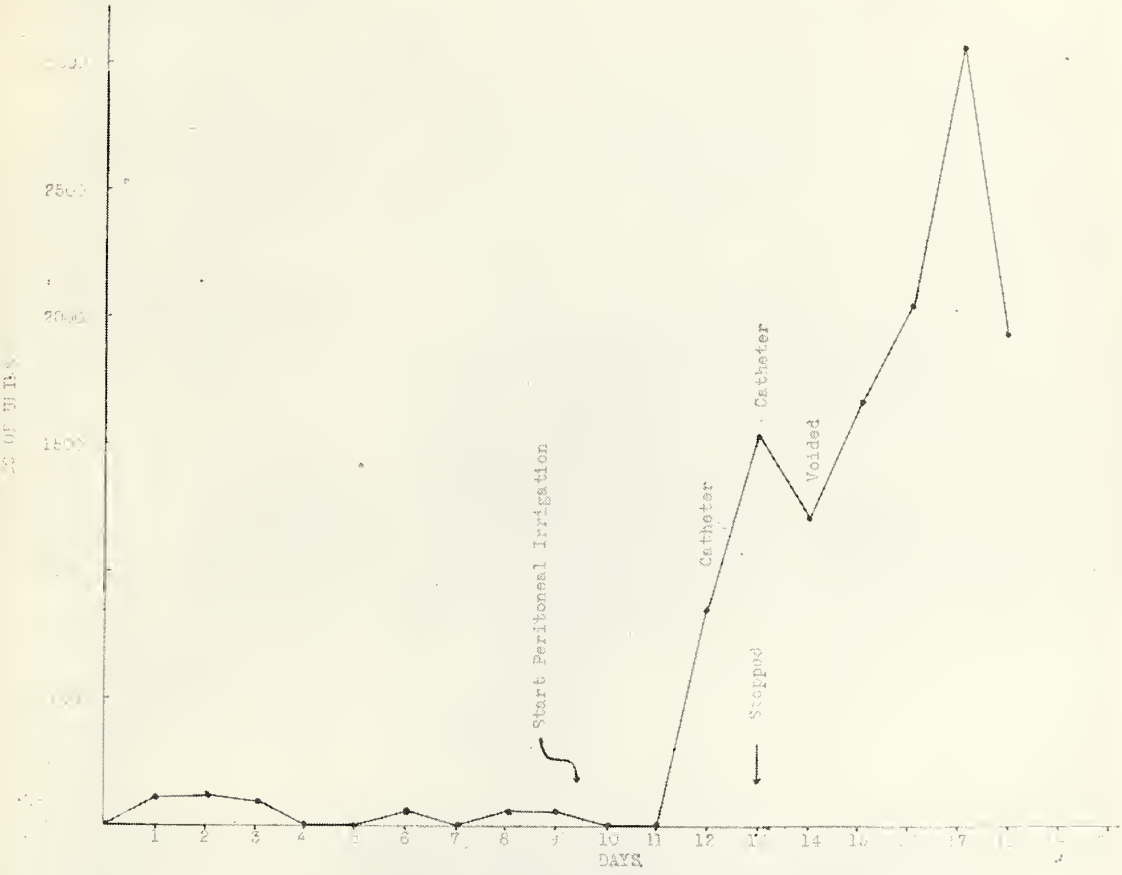
Physical examination: Positive findings: systolic murmur. Blood pressure 110/70. No evidence of decompensation. Tenderness in lower right and upper right quadrants.

His blood hemoglobin was 65%, and his urine showed a trace of albumen.

After gastro-intestinal x-ray study, sigmoidoscopic examination, and consultation with Dr. Louis E. Moon, a diagnosis of advanced ulcerative colitis was made. The patient was put on sulfathalidine, bland diet, Bargen's vaccine, vitamins, and was given a blood transfusion.

The case was slow to respond. Nausea and vomiting continued as did the diarrhea. On December 17, 1946, he was given another transfusion. His temperature rose to 104° F. Diminished urinary output developed; he passed only 100 cc. of coffee-colored urine the next day. (Figure 2). 105 cc. were recorded the following day, and then 90 cc. on the next. There was no urine the next two days. On the sixth day, 30 cc. were passed with none on the following day. On the eighth and ninth days he passed 30 cc. of urine. At this time Dr. Raymond Traynor consulted us as to the advisabilty of decapsulation of the kidneys. It was then decided to try intraperitoneal irrigation to combat his progressive azotemia. The apparatus was assembled, and a modified Tyrode's solution was started through his abdominal cavity at the rate of 40 cc. per minute. By the next morning, or the tenth day, approximately ten liters of solution had gone through the abdomen, removing 22.4 grams of urea N. (Figure 3). It was not until this following morning that blood studies could be obtained, so there are no definite figures as to his uremic state previous to starting the intraperitoneal irrigation. After the removal of 22.4 grams of urea via the peritoneum, his blood urea N was still 75.18 mg.% and his NPN was 103 mg.%. CO_2 combining power was thirty-seven volumes percent, a definite acidosis and uremic condition.

The patient was very edematous, and his condition remained poor. Intraperitoneal irrigation was continued for four and one-half days, during which time 134.6 grams of urea was removed by running 100 liters of solution through his abdomen. This means that every cc. of fluid passing through the patient's abdominal cavity carried with it 1.34 mg. of urea N. Wangensteen suction was started the day after peritoneal irrigation was begun. It yielded an additional 5.3 grams of urea during a three day period. The patient remained anuric until the twelfth day. He was catheterized at that time, because he had the urge to void and could not. 850 cc. of urine was obtained which contained cellular and hyaline casts and had a specific gravity of 1.005. The next day 1560 cc. of urine was obtained. Intraperitoneal irrigation was stopped. His urinary output continued to improve, blood urea N and NPN continued to drop, and the edema subsided. His temperature remained normal during the course of intraperitoneal irrigation, and at no time was there evidence of peritonitis. With the exception of a recur-



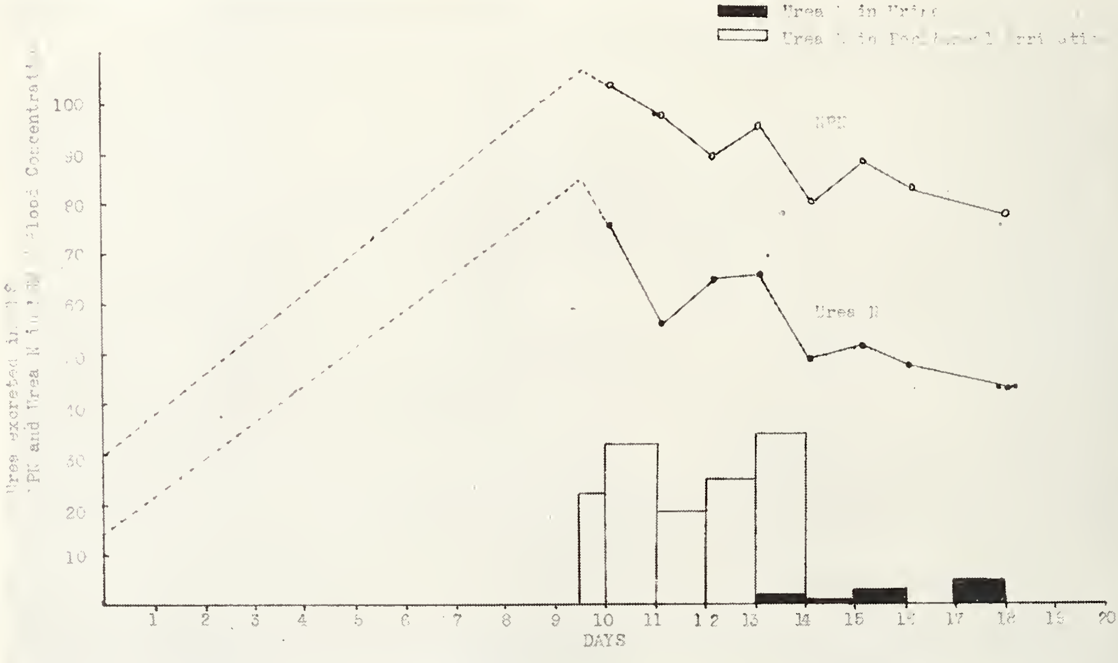
Urinary Output following Transfusion

rence of diarrhea, the patient continued to improve, and kidney function became normal.

METHOD

The irrigating fluid is a solution contaning the following anhydrous substances per liter:

NaC1, grams	8.0
KC1, grams	0.2
$CaC1_2$, grams	0.1
$MgC1_2$, grams	0.1
NaH_2PO_4, grams	0.05
$NaHCO_3$, grams	1.0
Dextrose, grams	20.0
Heparin, milligrams	0.277
Penicillin, units	5555.5
Sodium Sulfadiazine, grams	0.138



Course of azotemia and urea elimination by the kidneys and peritoneum following blood transfusion

Fifteen liters of freshly distilled water are run into a carboy. The NaC1, KC1, $CaC1_2$, $MgC1_2$, NaH_2PO_4, and dextrose are dissolved in two liters of water and autoclaved. The $NaHCO_3$ is dissolved separately in a liter of water and autoclaved. The heparin, penicillin, and sodium sulfadiazine are added to the cool solution in the carboy, as are the autoclaved solutions. It is important not to heat the sodium bicarbonate with the other chemicals because of the possibility of forming toxic substances from glucose or precipitating the Ca or Mg salts from the other ingredients. Penicillin and sodium sulfadiazine are used to help prevent peritonitis, but the latter is not used if there is evidence of sensitivity to the drug. Heparin is used to prevent adhesions and to keep fibrin from clogging the apparatus. The 2% glucose is found to be non-irritating to the peritoneum, and yet supplies the body with many grams of nutrient. This concentration of glucose tends to prevent edema.

Sometimes one has to make modifications in the irrigating solution to combat electrolyte changes and edema. Edema should not occur from the use of the above solution, but if it does become a problem, a 5% gelatin and 2.5% glucose solution may be used, but not without precaution as this gelatin-glucose solution rapidly depletes the plasma volume and may result in shock. Gelatin is very acid so NaOH must be added to make the solution a pH of 7.5 Edema may also be reduced by increasing the glucose content to 5% and eliminating the sodium salts in the peritoneal fluid or by giving concentrated glucose solutions, 25% or 50%, intravenously. The latter must be given very slowly.

The fluid flows by gravity from the two elevated carboys (Figure 4) by siphon tubes down to a Y-tube, through a drip-bulb, and from there into a Berkefeld filter, water bath, and then into the inlet tube into the peritoneum. The filter should be large enough to allow 40 to 60 cc. to flow per minute; this is usually accomplished by one that is an inch in diameter and eight inches long. The water bath should heat the solution a few degrees above body temperature (100° to 110° F.) so as not to chill the body. The inlet tube may be a rubber catheter or perforated stainless steel tube. The outlet tube must be a steel sump drain, because catheters and regular suction tips will clog. The inlet and outlet tubes are inserted under local anesthetic in each flank just above the iliac crests. The outlet tube should be directed toward the cul-de-sac. The irrigation will progress more smoothly if the patient is in a flat position, but because of the usual acidosis and edema, it is hard for him to get his breath unless his head is elevated.

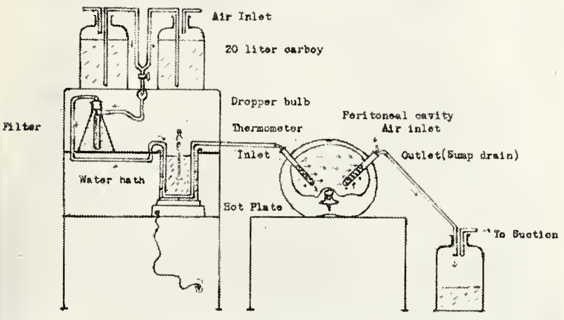


Fig. 4. Diagram of Intraperitoneal Apparatus

General nutrition during this type of therapy must be taken care of as must the anemia, acidosis, hypoproteinemia, electrolyte and vitamin balance.

This type of treatment may be carried on for long periods of time. The longest occurring in the literature is twelve days.

CASE II

Mrs. C. V. White, age 58 years, entered the hospital on March 1, 1947, with a history of bronchitis for which she had been taking sulfa for one week. On the day previous to admission she developed a hematuria and then an anuria which persisted to the time of admission whereupon she was catheterized, but no urine was obtained.

Physical examination revealed a rather obese female with tenderness in both flanks and lower abdomen. Her blood pressure was 144/82. She was not in a toxic state of uremia.

Continuous intraperitoneal irrigation was started a few hours after her admission. This time the blood urea was 24.2 mgm/%. Fifteen hours later 500 cc. of urine was obtained, after which the urinary output increased until the fourth day when it reached 3560 cc. By this time the blood urea had receded to 13.6 mgm/%, and the irrigation discontinued. Wangensteen suction was also used for three days to remove some of the urea products. The patient made an uneventful recovery.

SUMMARY

Two cases of renal failure have been presented which were treated by intraperitoneal irrigation, a promising therapeutic agent in treatment of uremia. However, this treatment is not practiced without danger. Peritonitis is possible but avoidable with the use of bacterial filters and antibiotics. The likelihood of peritonitis is reduced by putting drainage tubes in properly at the beginning and avoiding repeated reinsertion of them. Another danger is pulmonary edema, usually present in uremia because of forced intravenous fluids, and peritoneal irrigation when the composition of the irrigating fluid is not proper. With no urinary output, 1000 cc., given intravenously each day, is considered sufficient. Nutrition must be maintained, but very little glucose need be added, because the irrigating solution contains 2% glucose. Optimum time to start intraperitoneal irrigation has not been determined, but there seems to be no advantage in starting before a full blown uremia has developed, and it should be discontinued as soon as the kidney is able to resume function. It is futile to start this procedure in cases in which the kidney function would never return to a near normal level.

Since the above report was made, one more case of uremia was treated successfully by intraperitoneal irrigation. Following pelvic surgery a thirty-two-year-old woman was given a blood transfusion following the operative procedure. No immediate reaction from the blood was noted, but the next day hematuria and oliguria were noted. Anuria developed, and blood urea climbed quickly. Peritoneal lavage was instituted the second day after transfusion and continued for sixteen days. A modification of the apparatus was made eliminating the Berkefeld filter with no evidence of peritonitis resulting. Some difficulty was experienced with "channeling" toward the end of treatment which was overcome in part by changing position of intraperitoneal tubes and sitting the patient up at intervals. Modification of the intraperitoneal tubes has also been made to overcome the leak that occurs beginning the third or fourth day of operation, but these will be presented at a later date.

(Bibliography in Reprints)

Methemoglobinemia in Infants from Water Containing High Concentrations of Nitrates

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Methemoglobinemia in infants who have ingested well water containing a high concentration of nitrates has been reported in Iowa by Comley(1) and in Kansas by Ferrant and Miller(2). Two cases occurring in Belgium have also been reported recently by Ferrant (3). He has described the pathology of this new entity at length and repetition is not needed here. One proven case and one presumptive case have been observed in Nebraska and are here reported.

CASE REPORTS

Case 1: Infant G. was born prematurely at the Lincoln General Hospital on August 26, 1946 and weighed 3 pounds, 6½ ounces (1532 GM). She progressed without incident and was dismissed to her farm home on her thirty-fifth day. The weight was 5 pounds, 6½ ounces (2437 GM). The dismissal formula was thirteen ounces of evaporated milk, twenty ounces of water with five per cent added carbohydrate. In addition she was given twenty drops of percomorph oil and fifty milligrams ascorbic acid daily. When seen on October 21, 1946, twenty days after her dismissal, she weighed 5 pounds, 13 ounces (2614 GM). For the past two days she had had a moderately severe diarrhea. Physical examination revealed nothing of note except moderate dehydration. There was no evident cyanosis. Because of the slow weight gain and the diarrhea she was given an "Olac" formula furnishing twenty-two calories to the ounce and sent home.

Until the morning of October 23, 1946 she was thought to be improving. At 5 AM she was found by her parents to be a very peculiar slate-blue color and to be gasping for breath. She was readmitted to the hospital one and one-half hours later.

When seen at the hospital the infant had a deep slate-blue cyanosis of the skin, sclera, nail beds and all the mucous membranes. She was comatose. The respirations were 78 per minute and very deep. The pulse was very weak, rapid and irregular. It could not be counted. The skin was cold and clammy and the temperature was 97.2. No reflexes could be elicited and the infant seemed moribund. The weight on admittance was 5 pounds, 8 ounces (2474 GM).

Immediate therapy consisted of continuous oxygen which seemed to have no effect. Adrenalin mm 1, adrenalcortex extract 1 cc., and 50 cc. of saline were given but there was no beneficial effect. Attempts to withdraw blood for examination met with repeated failure although it was felt that the needle entered several veins.

Clinically it was thought that the infant was suffering from methemoglobinemia from some cause. Close questioning of the parents concerning the use of newly stamped diapers, bismuth subnitrate, or the presence of some gas from their heating mechanism, did not yield helpful information. The parents stated that their well was not located near the barn lot and that the water was thought to be good.

Several attempts to give methylene blue intravenously were unsuccessful and as a last resort 3 cc. of 1% methylene blue was placed in the stomach by tube.

Several deep heel lacerations were made to secure blood for examination soon after the methylene blue had been given. Approximately three cubic centimeters of very thick chocolate colored blood was obtained with difficulty. The blood seemed to clot almost immediately. It was reported to contain large amounts of methemoglobin when examined spectroscopically. Quantitative analysis was not done.

Fifteen minutes after the methylene blue had been given there was very definite lessening of the cyanosis, the infant cried and the respirations were less deep. At the end of one-half hour the infant seemed perfectly normal. She took three ounces of formula within the hour. There was no return of cyanosis.

Ten stools were passed during the afternoon and the temperature rose to 104. Penicillin, 10,000 units, was given every three hours for the next three days. but there was no recurrence of the temperature and the diarrhea subsided during the next four days. Blood count on the afternoon of admission was Hb. 9.2 gms., RBC 3,480,000, WBC 22,050 with a normal differential count. X-ray of the chest taken the same day was reported as normal.

The subsequent course has been uneventful. She was dismissed to her home after seven days weighing 6 pounds, 9½ ounces (2966 GM). The dismissal formula was skimmed whole lactic acid milk with added carbohydrate. The parents were instructed to use water from a known safe source.

The water which had been used in making the formula at the farm home was sent to the Division of Laboratories, Department of Health, State of Nebraska. It showed 137 parts nitrate per million and a trace of nitrites. It was also found to contain dangerous bacteria.

Case 2. Infant H. was seen at the age of six weeks at the request of her family physician because of projectile vomiting and repeated attacks of cyanosis. She had been delivered without incident and weighed 6 pounds, 14 ounces (3388 GM). She seemed normal in every respect and had been dismissed from the hospital on the fifth day weighing 6 pounds, 3 ounces (3050 GM). The dismissal formula was 10 ounces of evaporated milk, 20 ounces of water, and added carbohydrate. At the age of 29 days she had been readmitted to the hospital because she had developed a peculiar bluish color. At that time there was no interference with normal respiration, the temperature was normal and x-ray of the chest was reported as negative. For five days she was treated with oxygen but had shown no improvement. The peculiar cyanosis had cleared gradually and she had been dismissed to her farm home on a formula of powdered milk.

Projectile vomiting began soon after her second dismissal, and there was a gradual return of the cyanosis which varied from day to day. The projectile vomiting became more and more severe.

When seen, the infant appeared well developed, fairly well nourished and only moderately dehydrated. There was thought to be a slight cyanotic tinge to the skin and the mother stated that the blue color was much less evident than it had been the previous day. There was no evident enlargement of the heart and a pyloric tumor could not be palpated. The weight was 7 pounds, 8½ ounces (3388 GM).

The infant was admitted to Lincoln General Hospital on April 2, 1947 and placed on an evaporated milk formula with added carbohydrate. Sodium phenobarbital 1/10 gr. was ordered to precede each feeding. The temperature was normal, the blood count was Hb. 11.3 gm., RBC 3,140,000, WBC 8,050. Unfortunately spectroscopic examination of the blood was delayed until the second day after admittance and was reported as normal.

Questioning the parents concerning the use of newly stamped diapers or of any medication during the past illness was not helpful. When the baby had been dismissed from the hospital after birth her formula had been made with water from two wells. One located in the barn lot, and the other near the house. Water from both wells had been used without discrimination or reason as both wells were thought to be safe.

Request for examination of the wells to the Division of Laboratories, Department of Health, State of Nebraska resulted in the following report. Water from the well located in the barn lot contained 40 parts nitrates per million and no nitrites. Water from the well near the house contained 144 parts per million nitrates and a trace of nitrites. Both wells were safe bacteriologically.

Under treatment the vomiting gradually subsided and the infant was dismissed having gained 13 ounces during the seven days at the hospital. She was dismissed on an evaporated milk formula, the water to be obtained from a known safe source. There has been no recurrence of the vomiting or cyanosis. The dismissal diagnosis was pylorospasm.

Recently reported cases of methemoglobinemia, occurring from the ingestion of water containing a large concentration of nitrates, in the United States have been from the two middle western states, Iowa and Kansas. The two cases reported here and observed in Nebraska would seem to indicate that the entity is at least not rare in this area. Cases had been reported(4) before Comley ascertained the cause and no doubt other cases have occurred and not been reported. It is likely that many infants suffering from this condition may have been diagnosed congenital heart disease.

It would seem logical that high concentrations of nitrates could occur in the water of wells receiving surface drainage from barn lots or perhaps from fields fertilized with nitrates. This problem deserves further investigation. The accompanying chart shows the findings from the wells concerned in these two cases. Included are the findings from the wells of farms adjacent to that used by the infant in Case 1. Also several municipal wells are included from communities in the general area in which the two cases occurred.

Location	Date		Nitrate N Parts /Mil	Nitrite N Parts /Mil	Bacterial Contamination
Garland, Nebr.	10-25-46		139.0	.004	
Gehle Well	11-1-46		137.0	.003	B. Coli
Case I	4-7-47		115.0	.012	Type 1
Garland, Nebr.					
Pohlman Well	11-1-46		14.1	.002	Aerogenes
Garland, Nebr.	4-7-47	Barn	15.0	.002	
Jensen Well	4-7-47	House	17.6	.007	Neg.
Garland, Nebr.					
Municipal Well	7-25-46		.2	---	Neg.
Stapleton, Nebr.					
Municipal Well	8-29-46		9.7	---	Neg.
Ceresco, Nebr.					
Municipal Well	1-24-47		8.5	.002	Neg.
Ashland, Nebr.					
Municipal Well	7-29-46		9.0	---	Neg.
Virginia, Nebr.	4-2-47	Barn	40.0	---	
Hubka Well	4-2-47	House	144.0	.004	Neg.
Case 2					
Burchard, Nebr.	11-46	Well	.1	.005	
Municipal Well	11-46	Dist. System	.4	.006	Neg.
Crab Orchard, Nebr.					
Municipal Well	11-46		1.8	---	Neg.
Liberty, Nebr.	11-46	Sample 1	.07	.010	
Municipal Well	11-46	Sample 2	0	.002	Neg.

Although the concentration of nitrates in water which might be dangerous is not known and would depend on several factors it would not seem wise to use water with any considerable concentration in preparing formulas.

It is significant that in Case 1 the infant became rapidly and severely ill on a powdered milk formula when she had not been cyanosed on a formula of evaporated milk, which used less water from the farm well. Perhaps the diarrhea and slow weight gain were symptoms of nitrate toxicity. It may also be suggested that the inflamed mucosa of her intestine allowed more rapid absorption of the nitrites formed from the ingested nitrates. Most of the reported cases have had an associated gastro-intestinal disturbance as did these cases. Whether the disturbance is the result or one of the causes is not known. It is doubtful that the pylorospasm was the result of nitrate toxicity. However the projectile vomiting was relieved much more quickly than one would expect in the usual case. It is almost certain that the projectile vomiting saved the infant from more severe and perhaps fatal methemoglobinemia.

Methylene blue in proper dosage is known to be very effective in correcting methemoglobinemia. It acts in a matter of minutes as it did in Case 1. However in overdosage methylene blue can cause methemoglobinemia(5).

At the time the drug was used in Case 1 it was not known whether methylene blue would be effective when given by stomach. The intravenous dose of the drug is 1-2 mg. per Kg. of weight and the thirty mg. dose was assumed to be the correct amount when given by gastro-intestinal route. Recently Wallace (6) has reported the successful treatment of an infant with methylene blue given by mouth. This infant responded rapidly as did the infant in Case 1. Wallace states that the proper dosage by mouth is about ten times the intravenous dose, or 10-20 mg. per Kg. of body weight. The 30 mg. given in case 1 falls within those limits. The weight was 2474 GM.

Several other drugs are known to be effective in correcting methemoglobinemia. Ascorbic acid is very effective but the action requires several hours(7). Thianine is apparently as effective as methylene blue and is not toxic(8) but it is not readily available. Niocin is also effective.

Spontaneous recovery from methemoglobinemia occurs in about four days if the source of the nitrate is removed(9). This apparently occurred in Case 2 during her first readmission to the hospital. It is believed, however, that Case 1 would have terminated fatally if it had not been actively treated.

Case 2 is interesting in that the varying degree of cyanosis mentioned by the mother probably resulted from the indiscriminate use of water from two wells. Both wells contained significant concentrations of nitrates but in different amounts.

None of the adults using water from the wells which proved toxic to the infants were apparently effected. It is possible, however, that there are subclinical effects which are not known at this time from relatively small amounts of nitrates.

Since the determination of the nitrate content of water requires a larger sample than the bacteriological examination, the test is not done routinely on water samples. This could easily be corrected and it would seem important that the determination of a safe water supply depend on the nitrate concentration as well as bacteriological examination. It is obviously unsafe to dismiss infants to homes with a water supply not known to be safe in both respects.

SUMMARY

1. Two cases, one proven, one presumptive, of methemoglobinemia are reported. The source of nitrates causing the condition was well water of high nitrate content.

2. Methylene blue placed in the stomach by tube in proper dosage rapidly and effectively relieves methemoglobinemia.

3. Further investigation as to the cause of high concentrations of nitrate in the water of certain wells is needed.

4. Formula fed infants should not be dismissed to rural areas in which the nitrate content of the water is not known to be safe.

5. Routine examination for nitrates of all water samples in this area is indicated.

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NO HEALTH DANGER IN AIR TRAVEL FOR INFANTS UNDER ONE YEAR OF AGE

There is no danger in air travel for an infant under one year of age, states a medical consultant in answer to a query in The Journal of the American Medical Association.

Although there have been rumors that air travel is not well tolerated by infants, the consultant points out that a United Airlines survey conducted during 1941 and 1942 revealed that a healthy baby reacts better to flight conditions than most adults.

"An infant's ears adjust to altitude more easily than an adult's," the consultant explains, "probably because their eustachian tubes are short and straight.

"Airsickness is a rarity. There have been reports of vomiting, but this apparently is due to regurgitation of food when the infant is fed aloft. The gas expansion which takes place at altitude results in a regurgitation unless great care is taken to prevent the infant from swallowing air while being fed."

Carcinoma of the Extrahepatic Bile Ducts

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Recently a malignant lesion of the hepatic duct has come to our attention. Because of the rarity and deceiving clinical picture of such tumors, a review of the literature together with a presentation of the case should be of interest.

Since carcinoma of the larger bile ducts is comparatively rare, the standard texts contain only brief descriptions of it. The most complete report that has been published on this subject was made in 1940 by Stewart. Lieber and Morgan[1]. They found in the literature 98 cases in which the diagnosis was unequivocal, to which they added six cases of their own. Five of their own cases were found in a series of 22,152 autopsies done over a period of seventeen years at the Philadelphia General Hospital. This indicated an autopsy incidence of 0.022 per cent. Rolleston[2] found the following distribution in ninety cases of cancer of the larger bile ducts: common bile duct, 44; junction of hepatic, cystic and common ducts, 27; hepatic duct, 22; and cystic duct, 7.

Malignancies of the larger bile ducts occur most often in the sixth and seventh decades. Unlike malignancy of the gall bladder, which is more frequent in the female, malignancy of the bile ducts more often afflicts the male. There is a surprisingly low incidence of gall stones in large duct tumors, 22 per cent as reported by Ewing[3], distinguishing them once again from gall bladder neoplasms. Some authors feel that the passage of gall stones may produce the tumors, but this seems unlikely.

The earliest symptom in carcinoma of the large bile ducts is usually jaundice. Patients present a history of jaundice, dull pain in the right upper quadrant, loss of weight and acholic stools. Postprandial pain, dyspepsia, edema of the extremities, ascites and pruritus are complaints of less frequency. Our own case differed from most in that the patient did not complain of pain. Over 90 per cent of all patients give jaundice as a chief complaint, and approximately 50 per cent will complain of pain. The jaundice is usually marked, and the presence of complete biliary obstruction is evidenced by less than 5 mg. of fecal urobilinogen and 0.3 mg. of urinary urobilinogen excretion per day. The palpation of a smooth distended gall bladder is helpful in the diagnosis, but in most of the series reviewed the gall bladder could be felt approximately one-third of the time. Findings of lesser frequency are a profound secondary anemia, melena, achlorhyrdia, edema of the extremities, and ascites.

Clinically it is difficult to differentiate carcinoma of the extrahepatic bile ducts from pancreatic neoplasms. In a review of 62 patients by Kirshbaum and Kozoll[4], the correct diagnosis was made antemortem in only 20.9 per cent of the cases. The erroneous clinical diagnoses among the remaining 49 cases included: carcinoma of the head of the pancreas, 20 cases; carcinoma of the gastro-intestinal tract, 12 cases; carcinoma of the gall bladder, 3 cases; portal cirrhosis, 4 cases; primary carcinoma of the liver, 2 cases; peritonitis, 1 case; and perforated peptic ulcer, 1 case. Malignancies of the gastro-intestinal tract can usually be ruled out by means of roentgenological study, but it is often impossible to exclude cancer of the head of the pancreas. It is true that when pain is present in the latter it often begins in the epigastrium and radiates to the back in contrast to the right upper quadrant pain of the duct tumor. That some reports show carcinoma of the larger bile ducts to be more common than carcinoma of the head of the pancreas, is not generally appreciated. Whenever one is confronted with a patient presenting a marked, progressive jaundice, carcinoma of the large bile ducts must be strongly considered.

Neoplasms of the bile ducts tend to produce early obstruction and for this reason the tumor masses do not reach very great size before being seen at surgery or autopsy. When viewed grossly, the neoplasm may take one of two forms; as in our own case, it may be a papillary mass extending into the lumen of the duct, but more often it forms a lesion infiltrating the submucosa and muscular wall of the duct. The latter type may form a constricting band around the duct, or it may extend along the duct converting it into a rigid tube. Extension or metastasis occurs in approximately fifty per cent of the cases; the organs most frequently involved being the adjacent lymph nodes, liver, pancreas, kidney and lungs. The liver will invariably show the evidence of stasis by enlargement, obstructive biliary cirrhosis, and in some cases, numerous small abscesses. The condition of the gall bladder depends on the location of the tumor mass; when in the common duct, the gall bladder will be distended; if at the junction of the three ducts, it is usually distended; but if the tumor is in the hepatic duct, the gall bladder will be collapsed. The microscopic picture is one of adenocarcinoma in a fibrous stroma with few mitotic figures and large amounts of mucus in and between the cells and in the acini.

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CASE REPORT*

J. D., a 49-year-old white male carpenter, of French-Italian descent, entered Creighton Memorial St. Joseph's Hospital on June 10, 1946, complaining of generalized itching for six weeks and progressive jaundice of four weeks' duration. He had lost approximately 35 pounds in the past three months, but felt that his appetite had not diminished. He had experienced no pain at any time during his illness. His past and family histories were noncontributory.

Examination revealed a slender, jaundiced, middle-aged male, without evidence of pain. There were excoriations (secondary to the scratching) over the entire body, and a furuncle over the right ear. The sclera were jaundiced. There was a sinus bradycardia. The lungs revealed no abnormalities. The liver was palpable three cm. below the right costal margin but the gall bladder could not be felt.

Urinalyses were normal except for the presence of bile. On admission the hemoglobin was 14 grams; red blood cell count, 4,430,000; white blood cell count, 7,500, and the differential was normal. The blood serology was negative. The icterus index was 89.2 units. Prothrombin time and fragility tests gave normal results. A stool specimen was negative for bile.

On x-ray examination the aorta was dilated throughout its thoracic portion, most marked in the ascending portion, but the chest was otherwise negative. X-ray study of the gastro-intestinal tract was negative except for motility.

In view of the progressive, painless, obstructive jaundice accompanied by a loss of weight, a preoperative diagnosis of malignancy obstructing the biliary tract was made. At operation a firm, nodular mass was palpated in the main hepatic duct. In the opinion of the surgeon the tumor could not be removed and cholecystoenterostomy or cholecystogastrostomy was contraindicated because of the involvement of the hepatic duct. Direct implantation of the hepatic ducts into the intestine was not advisable as the liver was also involved. The abdomen was therefore closed without palliative or definitive therapy.

Following surgery the patient developed frequent, prolonged attacks of hiccough and had intermittent bleeding from the gums. He became progressively weaker and succumbed on the 25th postoperative day.

On postmortem examination the findings of interest concerned the biliary system. A single firm nodule, 2 cm. in diameter, was found one cm. proximal to the ampulla of Vater and lateral to the common duct. This proved to be the only lymph node to which the tumor had metastasized.

The ampulla was patent and uninvolved. The common duct contained black bile and two mixed-type stones in the neck. The mucosal surface of the gall bladder was dotted by small, bright yellow specks. The hepatic duct was dilated to the diameter of one cm. Within the dilated area, and about one cm. proximal to the junction of the hepatic and the cystic ducts was a soft papillary mass growing into the lumen of the hepatic duct. The growth measured 1.5 cm. in diameter. There was a direct extension of the growth into the liver forming a solid irregular mass 2 x 4 cm. within the hepatic parenchyma.

On miscroscopic examination of the tumor mass, tall cuboidal cells in fibrous connective tissue stroma lining irregularly shaped spaces were seen. In some areas these cells were polygonal in shape and several layers deep. These same cells contained mitotic figures. In some places the outer layer was thrown into papillary folds and many cells had disquamated into alveoli. The single lymph node presented a similar microscopic picture. The pathological diagnosis was adenocarcinoma of the hepatic duct with metastasis to a regional node and direct extension to the liver.

SUMMARY

1. Carcinoma of the bile ducts is rare, having a reported autopsy incidence of 0.022 per cent. It occurs most often at the junction of the common, cystic and hepatic ducts.

2. The most important symptoms are progressive jaundice, pain in the right upper quadrant, and loss of weight. Large bile duct cancer cannot be distinguished clinically from cancer of the head of the pancreas.

3. The pathological picture is that of adenocarcinoma with extension or metastasis in fifty per cent of the cases.

4. A case of carcinoma of the hepatic duct is presented.

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*From the service of Dr. E. M. Walsh.

Fundamentals in the Technique of Amputations*

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The subject of amputations in civilian life is usually considered to be of little importance because of the mistaken concept that it is a rare occurrence. As a result of the past war, about 17,000 individuals in the service of the United States were subjected to amputations of one or more extremities. This figure is rather overwhelming until vital statistics reveal that about 20,000 civilians in the United States undergo an amputation of an extremity each year.

In civilian life, indications for amputations may be divided into three categories; trauma, circulatory diseases, and neoplasms. At present, perhaps, circulatory diseases are responsible for the greater percentage of amputations in civilian life, but with the rapid advance of mechanized living, especially in the middle western rural population, trauma is becoming a more prominent factor. Great progress has been made in fluid balance and anesthesia which has resulted in more radical surgical procedures for the removal of neoplasms of the extremities with increasing success in cures of long duration, and although these are mutilating procedures, modern prostheses have been devised which aid these individuals to return to a useful life. Circulatory disease of sufficient severity to result in amputation is usually found in the age group over 45-50 years. Most of the amputees of this last war were in the prime of life and growth, and the difference between these two age groups must be considered in the discussion of site of amputation, length of skin flaps, and the fitting, wearing and education in the use of the prosthesis.

In discussion of the fundamentals in the technique of amputations, the optimum levels of amputation must be considered first. (See Fig. 1) The primary factors in selecting levels of amputation are first, the eradication of the pathology necessitating the amputation, and second, creating a stump which if applied to a prosthesis will result in maximum function of the extremity. (See Table 1).

In the actual operating technique, several pertinent facts must be remembered. The desired stump of an amputated extremity must be cone-shaped, with no redundant soft tissue, and the scar must be so placed that it is not subject to undue trauma in wearing the prosthesis. Accordingly, it is necessary that as thin a soft tissue covering as possible is placed over the end of the bone. No muscle flaps should ever be placed over the end of bone in any amputation stump. Fascia, tendon or fibrous aponeurosis should be the only soft tissue between bone and skin. It is desirable that complete fascial closure be made as it results in a more freely moveable scar, but adequate closure can be made with skin and subcutaneous tissue alone.

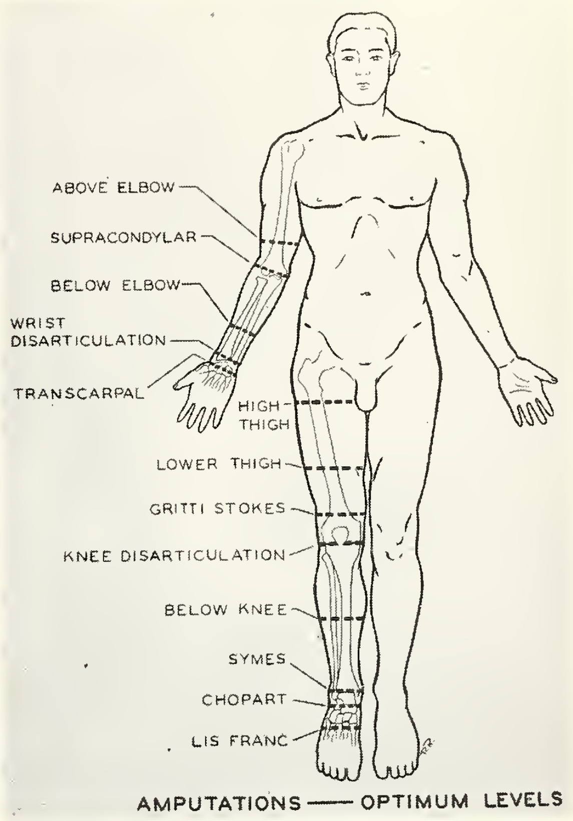

Fig. 1. Fundamentals in the Technique of Amputations.

Treatment of bone ends in the stump may vary, but in general, an attempt at producing an aperiostal stump is made. The periosteum is removed completely around the bone, for about one-quarter of an inch. Sharp bone edges are smoothed with a rasp. This procedure tends to eliminate spur formation on the end of the bone. Special end-bearing stumps such as the Gritti-Stokes, the tenoplastic of Kirk, and Symes will not be discussed here.

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*Read before the Annual Assembly, Nebraska State Medical Association, 1947.

TABLE NO. I

Site of Amputation	Maximum Length	Minimum Functional length
Upper extremity Above Elbow	Three inches proximal to elbow joint.	One inch distal to insertion of pectoralis major.
Below Elbow	Seven inches distal to olecranon of ulna or three inches proximal to wrist joint.	One inch distal to radial tuberosity.
Lower extremity Above Knee	Twelve inches distal to greater trochanter of femur or three inches proximal from knee joint.	Six inches distal to greater trochanter of femur.
Knee Bearing	Knee disarticulation.	Three inches above knee joint.
Gritti-Stokes	One-fourth inch proximal to anterior margin of articular cartilage of femoral condyle.	Proximal limit of cancellous bone in condylar flare of femur.
Below Knee	Six inches distal to plateau of tibia.	Two inches distal to plateau of tibia.
Symes	One-fourth inch proximal to ankle joint.	

There are many methods which have been advanced for the treatment of nerve ends in an amputation stump. The most simple, and seemingly, the most effective is the dissection of the nerve away from the scar, into normal tissue, simple ligation to catch the nutrient vessel and sharp transection with scalpel or razor blade. The nerve is then allowed to retract back into normal tissue. In a personal series of over 400 amputations done in a military hospital only three secondary neurectomies were necessary for a residual causalgia.

Skin flaps and position of the scar in relation to the end of the stump must be adapted to the type of amputation and the prosthesis to be fitted. Upper extremity amputations are all done with equal skin flaps, when possible, placing the scar line directly over the end of the stump. When applying a prosthesis to an upper extremity amputation. pressure of use is mainly on the sides of the stump, so an end-type or terminal scar is subjected to less trauma.

Most lower extremity amputations require a posterior scar, resulting from long anterior and short posterior skin flaps. A simple rule for determining the length of skin flaps is to first measure the antero-posterior diameter of the extremity at the desired level of amputation. Two-thirds of the A-P diameter of the stump is taken as the length of the anterior skin flap, measured distally from the desired level of bone amputation, and the posterior skin flap is then cut as long as the remaining one-third. Accurate measurements and cutting may be done by marking out the flaps on the skin with sterile methylene blue solution on an applicator. Most skin flaps are cut on a fish-mouth pattern to avoid "dog ears" at the junction of the anterior and posterior flaps. While the above method of measuring skin flaps will result in fairly good approximate lengths, it is better that the flaps be trimmed at the time of closure to make them fit snugly than to leave loose, redundant skin on the end of the stump. Subcutaneous sutures are used to produce as narrow a scar line as possible.

Upon completion of the operation a petrolatum gauze strip may be applied over the suture line to facilitate removal of the dressings. Drains are used only if difficulty in hemostasis or possible infection or contamination is encountered during the procedure. A pressure dressing of mechanic's waste or gauze fluffs is held in place with an elastic bandage, wrapped snugly and wherever possible, the entire stump is encased in a plaster cast including the joint above the amputation site. The cast is allowed to remain in place for nine to ten days, unless undue pain occurs, when the cast is bivalved and the stump is inspected. Sutures are removed on the tenth day and physiotherapy to the limb instituted on the fourteenth post-operative day.

SUMMARY

Amputations of extremities are becoming more frequent in rural civilian life with the progress of mechanized farm equipment. More satisfactory amputation stumps result from adherence to the following fundamental factors in the technique of amputations.

1. Optimum levels of amputation must be determined by level of pathology to be removed, blood supply to remaining portion of stump and maximum function of the prosthetic device to be applied.

2. No redundant soft tissue masses over the end of the bone.

3. Elimination of bony spurs by removal

of cuff of periosteum from the end of the bone.

4. Simple ligation and transection of nerve ends within normal tissue away from scar.

5. Proper measurement of skin flaps and placement of scar in relation to function of the stump.

6. Pressure dressings without drainage when possible.

* * *

PROCEEDINGS OF THE MEDICAL STAFF OF THE NEBRASKA METHODIST HOSPITAL

Mechanical Intestinal Obstruction Due to a Congenital Band, etc.

JOHN R. SCHENKEN, M.D., Editor
Omaha, Nebraska

Case 1. Mechanical intestinal obstruction due to a congenital band and hydronephrosis due to an aberrant vessel.

Dr. John W. Thomas (Clinical History): This boy is now about 11 years of age. He was perfectly well until February 1941 when he developed acute abdominal pain which was followed in a few hours by vomiting. Although it was generalized over the whole abdomen, the pain was most intense about the navel. The vomiting and abdominal pain persisted for about 24 hours. A doctor saw him at this time and could not determine the cause of the vomiting. For three or four days following this attack the child had a generalized soreness. After that, he had similar episodes every week or two, month in and month out, year in and year out for four years. Each of these attacks was similar to the first attack. He lived in Milwaukee at that time and was seen by a diagnostician, a general practicioner, an allergist, a pediatrician, a surgeon and an osteopath. Although all of these men told the family that his symptoms were baffling, each of them had his own idea as to the cause of the trouble and he was treated at one time or another for an intestinal allergy, a psychoneurosis, an intestinal obstruction, a nervous stomach, and a Meckel's diverticulum. Various forms of medical treatment were tried without avail and finally in May of 1944 a surgeon in Milwaukee explored the intestines from one end to another and found nothing, but removed a normal appendix.

The family moved to Omaha March 1, 1945. This move was followed by a period of six weeks of freedom from all symptoms and the family was convinced that the illness had been on an allergic basis. After six weeks, however, he had an attack similar to previous ones and I was asked to see the boy. My impression at the time was that there was a large psychic element although I could not put my finger on anything. He had generalized abdominal tenderness with slight rigidity, most marked about the navel. The mother told me that in the past the pain had never been relieved by aspirin but had been relieved by codeine, so codeine was given, without relief of pain, however. That night, a few hours after I saw him, he said that he felt as though something had "let go" inside. The pain and vomiting continued and the following day the mother told me that his pain was no better and asked whether she could not increase the codeine as she had on previous occasions. She did not seem at all alarmed that even with an increase in codeine the pain was not relieved. I saw the boy again and still could find nothing. Because of the long series of illnesses the family was very skeptical of everything that every doctor told them and I was definitely working against difficulties. After three days, however, of abdominal pain and vomiting the family consented to allow the boy to be hospitalized where intravenous fluids could be administered and he could be watched more closely. We still could find no cause for the pain or vomiting. When surgical consultation was suggested, they flatly refused, saying that he had been explored and they would almost rather have him die than to have him explored again because they were convinced that none of us was "on the right track." Finally, however, they were told that surgical consultation was absolutely necessary. Dr. Kennedy was called at this time.

Dr. John Kennedy: I saw the boy on about the sixth day of his illness and at that time, because of his extreme nervousness and irritability, examination was difficult. There was marked spasm of the abdominal muscles, but I could find very little of significance except slight distension. The boy was no longer dehydrated as he had been given plenty of fluids. It was apparent that he had a high intestinal obstruction. Dr. Hunt took a number of x-rays of the abdomen.

Dr. Howard Hunt: A plain radiograph of the abdomen on June 26, 1945 showed gross distention of the duodenum and upper jejunum by gas supernatant above fluid levels. Gastro-intestinal examination confirmed the presence of nearly complete obstruction of the upper jejunum. The stomach was displaced forward by a retrogastric mass.

Dr. Kennedy: With the history of intermittent attacks which indicated a high obstruction, I thought of the possibility of a recurrent intussusception due to an intestinal polyp. When this was mentioned to the family, they said that that was the diagnosis made before the previous operation when nothing had been found to explain the illness. Then Dr. Hunt found a mass behind but not involving the stomach. Although we could not feel anything at that time, by the following day the mass was large enough to be palpated and by the next night it was not only palpable but could be seen across the room as a bulge in the epigastrium. In the meantime suction had failed to relieve the obstruction and the parents were told that an operation would be necessary. They were reluctant to permit another operation. I suggested a consultation but they refused. Finally, we told them that it was the choice of an operation or the death of the child. It was pointed out that this attack differed from the others in that about twenty-four hours after the onset he had had sudden pain in the left upper quadrant and said that he thought something had "broken loose". Finally, a week after the onset, an exploratory celiotomy was carried out.

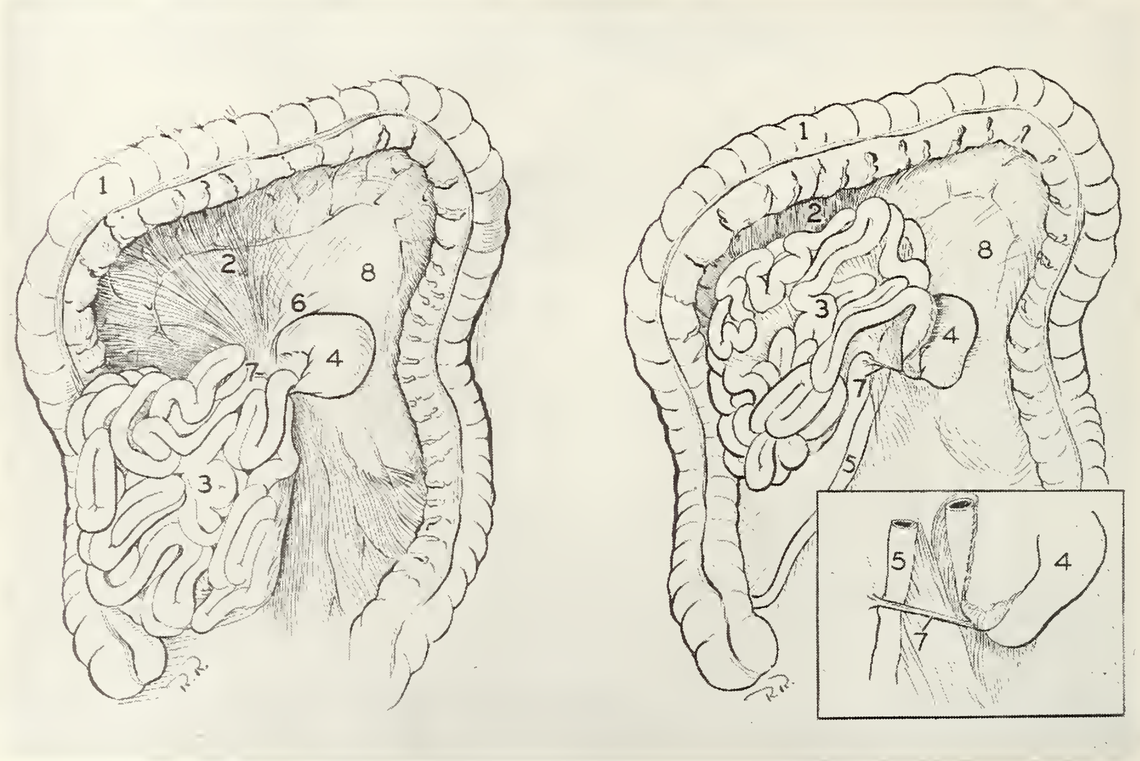

Fig. 1. Drawing of Intestines in situ showing location of congenital band.

1. Colon
2. Mesocolon
3. Coils of small intestine
4. Proximal jejunum
5. Distal ileum
6. Duodenal-jejunal fold
7. Congenital fibrous band
8. Bulging mesocolon over kidney

The abdomen was opened through a high left rectus incision. The colon and most of the small intestine were found to be empty and collapsed. The stomach, duodenum and upper 10 cm. of jejunum were moderately distended, but the most striking feature was a large cystic mass in the lesser sac pushing the stomach and transverse colon anteriorly. The mass bulged through the gastro-hepatic ligament and transverse mesocolon. At first, I thought that I was dealing with a hernia into the lesser sac through a rent in the transverse mesocolon. On lifting the collapsed distal bowel, a short fibrous cord, about 3 mm. in diameter, was found extending from the mesentery of the upper jejunum to the transverse mesocolon at its attachment to the body wall just to the right of the midline (Fig. 1). This cord apparently was attached to the right crus of the diaphragm, because with expiration it would draw upward. The entire small intestine with the exception of the proximal jejunum and distal ileum had passed beneath this cord from below and then dropped back into a relatively normal position, causing a counter clockwise torsion of the jejunum through 180° at the point of attachment of the cord. The opening through which the bowel passed was so small that it could not be drawn back so the cord was divided between clamps and the obstruction relieved. It is my opinion that this was a congenital band.

After relieving the obstruction there was still a mass in the lesser sac. I opened the transverse mesocolon and found a large hydronephrosis which originated in the left kidney. During the time he had been in the hospital his urinalysis had shown nothing abnormal. During his previous hospitalizations his urine was also negative. Not having anticipated such a finding and not knowing the condition of the other kidney, nothing was done about it at this operation. Following the operation the parents were told that the cause of the obstruction had been found and relieved but the child had another condition which would require care in the near future.

At the time of the patient's discharge from the hospital the kidney mass was no longer palpable.

In retrospect we were unable to determine definitely whether the previous attacks of abdominal pain were intestinal or renal in origin. We were inclined to favor the renal origin because of the milder pain and short duration of the earlier attacks. This attack was also characterized by severe left upper quadrant pain which he had not had before.

Several months after the operation I saw this child when he was having another attack of pain similar to the one he had when he was first hospitalized here. He had the same peri-umbilical pain, but not the severe pain in the left upper quadrant and it lasted only about 12 hours. Shortly after this the patient's parents consulted Dr. Adams with regard to the hydronephrosis.

At the time of this last visit, the patient's mother expressed her fear of having more children because she believed that there was an hereditary factor in her son's illness. Her mother's brother had died at the age of ten days of intestinal obstruction and a cousin of her mother had died at the age of two weeks because of obstruction, either in his stomach or in his bowel. The former was not operated on but the latter was explored without benefit.

I do not know what the cord-like structure which caused the obstruction was. It extended from the mesentery or mesenteric border of the upper jejunum to the diaphragm or the right crus, passing through the transverse mesocolon. Dr. Latta of the University of Nebraska College of Medicine suggested the most likely explanation of this is on the basis of a persistence of one of the original segmental mesenteric vessels which, failing to drop out, became a fibrotic cord.

I will let Dr. Hunt and Dr. Adams carry on from here.

Dr. Hunt: Excretory urography on September 25, 1945 revealed enlargement and definite functional impairment of the left kidney with rounded dilatation of the vaguely outlined calices. Retrograde pyelography was more helpful, showing enlargement of the calices and of the left pelvis to five to six times normal size. The ureter was not dilated, indicating some obstruction at the left ureteropelvic junction. The right urinary tract appeared essentially normal.

Dr. Payson Adams: You can imagine the state of mind of this family and the boy by the time they got to the urologist!

On physical examination there was nothing to be palpated and there was no pus in the urine. The story was atypical to say the least. The blood pressure was normal. The most interesting thing in the history, as far as the urological system was concerned, was the rapid disappearance of this mass and then the finding of the cystic structure in the region of the left kidney. I persuaded the family to let me cystoscope the boy. First of all, however, we had to have an intravenous urogram to demonstrate to them that there was something wrong with the kidney. It demonstrated a functioning but not quite normal right kidney, the right side of which showed narrowing of the uretero-pelvic junction. This could have been due to an aberrant renal vessel on the right side but was of such minor significance that I thought we could discount it. There was a large hydronephrosis on the left side. I withdrew 50 cc. of fluid and then injected 100 cc. The normal capacity of the kidney in a child of this age is about 4 cc. We demonstrated an obstruction at or near the uretero-pelvic junction and made a diagnosis of aberrant renal vessel, associated possibly with stricture of the ureter. Again we had great difficulty in persuading the parents to allow surgery but finally did and performed the operation. I think the quickest way to discuss the operation is to read my report.

"The kidney substance was thinned out so that in many places it was not more than 0.5 cm. thick. The best tissue seemed to be at the extreme lower pole of the kidney. In further freeing the kidney, an extrarenal pelvis, thin-walled, about the size of a small orange, was discovered and freed from the peritoneum and surrounding tissue. An aberrant renal vessel about half the size of a lead pencil was found which ran medially from the lower pole of the kidney to the aorta, crossing the ureter at a level of the lower pole of the kidney and about 3.5 cm. below the ureteropelvic junction. The ureter was narrowed at this point but was not strictured. The ureter itself was about normal in size, thin-walled and progressed up to the junction of the middle and lower thirds of the pelvic wall where it entered the pelvis, at which point it was markedly constricted. The aberrant renal vessel was doubly clamped and severed and the ends ligated with No. 1 chromic suture. A few minutes later the lower pole of the kidney was noted to be cyanotic. This tissue composed about one-fifth of the kidney. Because of the extreme degree of extra- and intrarenal hydronephrosis with dilatation of the calyces and thinning of the cortex, it was felt that this kidney was beyond repair and a nephrectomy was done."

The boy left the hospital in about 10 days and I believe I am correct in saying that he never had a similar attack, has gained some 15 or 20 pounds in weight and seems to be perfectly well.

* * *

The Council on Medical Education and Hospitals of the American Medical Association maintains a list of 79 approved four year medical schools and eight approved schools of the basic medical sciences in the United States and Canada in which more than 23,000 students are enrolled.

The Bureau of Legal Medicine and Legislation of the American Medical Association has been active for years in promoting the enactment of laws to protect the public from the misuse of narcotics and other dangerous drugs, such as barbiturates or sleeping pills as they are frequently called.

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Vol. 32 October No. 10

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

COMMENT

(Nebr. State Med. J.: Vol. 32, p. 321, Aug. '47: Hyperparathyroidism Due to Adenoma of Parathyroid Gland:)

In the presentation of case 1 by Dr. E. L. MacQuiddy, the following statement was made: "Dr. Best and I feel that this woman had a much more uneventful convalescence than did the patient at the University to whom Hytacherol was not given."

Attention is called to the fact that this patient also received dihydrotachysterol (AT-10) in addition to other medication used to combat the tetany of hypocalcemia, incident to parathyroidectomy. For a period of fifteen days postoperatively treatment was limited to calcium gluconate, Gm. V.T.I.D. orally, periodic administration of 20 cc. of 5% calcium chloride intravenously to control tetany and three 1 cc. doses of parathyroid extract (Eli Lilly & Co.). The calcium level continued to fall and the condition of the patient was considered critical. On 2-12-46, 2½ weeks after operation, dihydrotachysterol (Hytacherol, AT-10) was started in doses of gtts. II in ½ glass water twice daily. On 2-15-47 this dosage was increased to 3 cc. twice daily and continued for one week, when a smaller dosage of 3 cc. once daily was given. It is to be noted that all signs of tetany disappeared within one week from the first time of administration of dihydrotachyisterol. Also the blood calcium level at the end of one week was 8.32 mg. %. This patient has recovered and is being followed periodically in the University dispensary.

E. J. KIRK, M.D.

ANNOUNCEMENTS

A.M.A. MIDWINTER SESSION

Plans have been completed for the Scientific Exhibit to be held at the midwinter session of the American Medical Association in Cleveland, January 5 to 8. Exhibitors who have material of particular interest to the physician in general practice will be invited to participate.

The meeting on January 5 and 6 will be devoted to industrial health, and the scientific exhibits will be arranged with special emphasis in this field. Other subjects to be emphasized are cancer, heart disease, first aid in motor accidents, diabetes, hearing aids, dermatology in general practice, endocrine diseases and nutrition. There will be question and answer conference rooms for the benefit of physicians seeking specific information, and motion pictures will be shown continuously throughout the week.

The American College of Physicians will conduct its 29th Annual Session at San Francisco, April 19-23, 1948. General Headquarters will be at the Civic

Auditorium. Dr. William J. Kerr and Dr. Ernest H. Falconer, both of San Francisco, are the Co-Chairmen for local arrangements and the program of Clinics and Panel Discussions. The President of the College, Dr. Hugh J. Morgan, Professor of Medicine at Vanderbilt University School of Medicine, Nashville, Tennessee, is in charge of the program of morning lectures and afternoon general sessions.

Secretaries of medical societies are especially asked to note these dates and, in arranging meeting dates of their societies, to avoid conflicts with the College Meeting, for obvious mutual benefits.

All physicians who served with U. S. Public Health Service during World War II can obtain their medals from the U. S. Coast Guard Office at 317 Post Office Building, Omaha.

Applications for Part I of the examination of The American Board of Orthopaedic Surgery must be received by the Secretary, Dr. Francis M. McKeever, 1136 West 6th Street, Los Angeles 14, California, not later than January 15, 1948. Your early compliance will be greatly appreciated.

Information relative to examining centers and dates will be announced at a later date.

THE AMERICAN BOARD OF
ORTHOPAEDIC SURGERY, INC.

The National Society for the Prevention of Blindness announces that it will hold a three-day conference, April 5, 6 and 7, 1948, at the Hotel Radisson, Minneapolis, Minn. This Conference will be of interest to persons who are directly or indirectly concerned with eye health and safety. Details concerning the program may be obtained by writing directly to the Society at 1790 Broadway, New York 19, N. Y.

THE OMAHA MID-WEST CLINICAL SOCIETY

Fifteenth Annual Assembly

October 27, 28, 29, 30, 31, 1947
Hotel Paxton — Omaha, Nebr.

PROGRAM

MONDAY MORNING, OCTOBER 27th

8:30 a.m.—Registration.

10:00 a.m.—"Observations on Hepatitis." (Motion Picture).

10:30 a.m.—"Folvite in the Treatment of Anemia." (Motion Picture).

10:50 a.m.—"Scalenus Anticus Syndrome." (Motion Picture).

11:15 a.m.—"Diagnosis and Surgical Treatment of Carcinoma of the Lung," William F. Rienhoff, Jr., Baltimore, Maryland, Associate Professor of Surgery, Johns Hopkins University School of Medicine.

12:00 Noon—"Anticoagulant Therapy," Nelson W. Barker, Rochester, Minnesota, Consultant in Medicine, Mayo Clinic; Associate Professor of Medicine, Mayo Foundation, University of Minnesota.

12:45 p.m.—Visit the Exhibits.

1:00 p.m.—Luncheon. Discussion—"Pulmonary Embolism." Leader, Nelson W. Barker.

MONDAY AFTERNOON

2:30 p.m.—Clinic—"The Management of Some of the Common External Ocular Diseases," T. E. Sanders, St. Louis, Missouri, Assistant Professor of Ophthalmology and Ophthalmic Pathology, Washington University School of Medicine.

3:30 p.m.—Clinic—"Peripheral Vascluar Diseases," Nelson W. Barker.

4:30 p.m.—Clinic—"Diagnosis and Surgical Treatment of Hyperparathyroidism," William F. Rienhoff, Jr.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Discussion—"Diaphragmatic Hernia." Leader, William F. Reinhoff, Jr.

MONDAY EVENING

8:15 p.m.—"Hypertension and Unilateral Renal Disease," Nelson W. Barker.

8:45 p.m.—"Diagnosis and Surgical Treatment of Lesions of the Esophagus," William F. Rienhoff, Jr.

9:15 p.m.—"Evaluation of Ocular Complaints," T. E. Sanders.

TUESDAY MORNING, OCTOBER 28th

8:15 a.m.—"Feeding the Infant During the First Year." (Motion Picture).

8:40 a.m.—"The Use of Sulfathalidine in Chronic Ulcerative Colitis." (Motion Picture).

9:00 a.m.—"Indications for Urologic Survey in Pediatrics," Charles A. Weymuller, Brooklyn, New York, Professor of Pediatrics, Long Island College of Medicine.

9:40 a.m.—"The Ocular Diseases of Infancy and Early Childhood," T. E. Sanders.

10:20 a.m.—"The Despecialization of Psychiatry," Franklin G. Ebaugh, Denver, Colorado, Director, Colorado Psychopathic Hospital; Professor of Psychiatry, University of Colorado School of Medicine.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:50 p.m.—Local Symposia—

"Convulsive Disorders"
P. T. Cash, Chairman

"Convulsive Disorders in Infancy and Childhood," J. Harry Murphy.

"Symptomatic Seizures in General Medical Conditions," Eugene E. Simmons.

"Neurosurgical Aspects of Convulsive Disorders," Alister I. Finlayson.

"Modern Concepts of Convulsive Disorders—Diagnosis and Treatment," Ernest Kelley.

"Immunization"
Charles A. Tompkins, Chairman

"Scarlet Fever and Measles," Gerald C. O'Neil.

"Diphtheria and Tetanus," George E. Robertson.

"Whooping Cough," Herman M. Jahr.

"Influenza," Warren Thompson.

"Low Back Pain"
William L. Sucha, Chairman

"Urologic Aspects," William H. Schmitz.

"Neurologic Aspects," G. Alexander Young.

"Gynecologic Aspects," John J. Freymann.

"Orthopedic Aspects," William R. Hamsa.

"Medical Aspects," R. Allyn Moser.

1:00 p.m.—Luncheon. Discussion—"Iatrogenic Factors in Illness." Leader, Franklin G. Ebaugh.

TUESDAY AFTERNOON

2:30 p.m.—"Some Orthopedic Problems of Infancy and Childhood," (Clinic), William T. Green, Boston, Massachusetts, Clinical Professor of Orthopedic Surgery, Harvard Medical School; Orthopedic Surgeon-in-Chief, The Children's Hospital and Peter Bent Grigham Hospital.

3:30 p.m.—Clinic—"Hysterical Reaction Patterns" (With Motion Picture), Franklin G. Ebaugh.

4:30 p.m.—Clinic—"Intestinal Obstruction in Infancy," Charles A. Weymuller.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Discussion—"The Management of a Nursery for the Newborn." Leader, Charles A. Weymuller.

TUESDAY EVENING

8:15 p.m.—"Evaluation of Interviewing Technics and Principles of Psychotherapy for the General Practitioner," Franklin B. Ebaugh.

8:45 p.m.—"Certain Important Clinical Entities in the Newborn Period Featured by Respiratory Distress," Charles A. Weymuller.

9:15 p.m.—"Foot Strain," William T. Green.

WEDNESDAY MORNING, OCTOBER 29th

8:10 a.m.—"Folvite in the Treatment of Anemia." (Motion Picture).

8:30 a.m.—"Observations on Hepatitis." (Motion Picture).

9:00 a.m.—"Origin and Management of Postpartum Hemorrhage," Bayard Carter, Durham, North Carolina, Professor of Obstetrics and Gynecology, Duke University School of Medicine; Obstetrician and Gynecologist-in-Chief, Duke University Hospital.

9:40 a.m.—"Infantile Paralysis, Facts and Fancy," William T. Green.

10:20 a.m.—"Red Blood Cells in the Urine," Roy B. Henline, New York, New York, Director of Urology, Sydenham Hospital.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:50 p.m.—Local Symposia—

"New Therapeutic Agents"
Lynn T. Hall, Chairman

"Digitalis Derivatives," Maine C. Anderson.
"Amino Acids," Raymond L. Traynor.
"Radioactive Isotopes," Howard B. Hunt.
"Antibiotics," John R. Kleyla.
"Insulin Therapy," Morris Margolin.

"Obstetric Problems"
Ralph Luikart, Chairman

"Prophylactic Episiotomy and Prophylactic Low Forceps," Maurice E. Grier.
"Breast Care — Pre and Post-natal," David Findley.
"Induction of Labor at Term," Earl C. Sage.
"Management of Hydrocephalus," Leon S. McGoogan.
"Management of Breech," J. Philip Redgwick.

"Thyroid Disease"
R. Russell Best, Chairman

"Masked Hypothyroidism and Hyperthyroidism, Including Psychogenic Factors," John F. Gardiner.
"Evaluation of the Newer Drugs in the Treatment of Hyperthyroidism," Richard L. Egan.
"Radiotherapy in Thyroid Disease," Roy W. Fouts.
"Selection of Cases for Thyroidectomy," Alfred Brown.
"Complications of Thyroidectomy," John R. Nilsson.

1:00 p.m.—Luncheon. Discussion—"Infantile Paralysis." Leader, William T. Green.

WEDNESDAY AFTERNOON

2:30 p.m.—Clinic—"Tumors of the Pancreas and Pancreatitis," Warren H. Cole, Chicago, Illinois, Professor of Surgery and Head of Department, University of Illinois, College of Medicine.

3:30 p.m.—Clinic—"Prostatitis: Cause, Treatment and Significance," Roy B. Henline.

4:30 p.m.—Clinic—"Diagnosis and Treatment of Habitual Abortion, Including the Rh Factor," Bayard Carter.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Discussion—"Office Gynecologic Practice." Leader, Bayard Carter.

WEDNESDAY EVENING

8:15 p.m.—"Prostatic Disease with Special Reference to Early Diagnosis and Treatment of Carcinoma of the Prostate," Roy B. Henline.

8:45 p.m.—"Obstetric and Gynecologic Mycotic Infections," Bayard Carter.

9:15 p.m.—"Appendicitis," Warren H. Cole.

THURSDAY MORNING, OCTOBER 30th

8:10 a.m.—"Scalenus Anticus Syndrome." (Motion Picture).

8:30 a.m.—"Feeding the Infant During the First Year." (Motion Picture).

9:00 a.m.—"Nutritional Advances in Medicine and Surgery," Paul R. Cannon, Chicago, Illinois, Professor of Pathology and Chairman of Department of Pathology, University of Chicago.

9:40 a.m.—"Intestinal Obstruction," Warren H. Cole.

10:20 a.m.—"Treatment of Intractable Peptic Ulcer," Walter L. Palmer, Chicago, Illinois, Professor of Medicine, University of Chicago.

11:00 a.m.—Visit the Exhibits.

11:15 a.m. to 12:50 p.m.—Local Lectures—

Room A
E. T. Manning, Chairman

"Vaginal Fistulae," Robert F. Farrell.
"Radiologic Urology," T. Tennyson Harris.
"Cryotherapy (Dry Ice) in Treatment of Skin Diseases," William E. Kelley.
"Results of Modern Cleft Palate Surgery," Harry N. Boyne.

Room C
M. W. Barry, Chairman

"Evaluation of Present Day Treatment of Cirrhosis of the Liver," Charles Frandsen.
"Evaluation of the New Drugs in Diseases of the Ear, Nose and Throat," Herman E. Kully.
"Indications for Tracheotomy," William P. Haney.
"Case Finding Value of Miniature X-rays of the Chest," Max Fleishman.

Room D
S. J. Carnazzo, Chairman

"Hernia — Diagnostic Difficulties," Louis E. Hanisch.
"Liver Tumors—Diagnosis and Method of Surgical Resection," Louis D. McGuire.

"The Physiologic Properties and Clinical Applications of Vitamin P (Citrin, Rutin)," Victor E. Levine.

"Is Tonsillectomy Contraindicated During an Epidemic of Poliomyelitis?" J. Calvin Davis.

1:00 p.m.—Luncheon. Discussion—"Pre and Postoperative Care." Leader, Warren H. Cole.

THURSDAY AFTERNOON

2:30 p.m.—"Geriatrics as a Specialty," Edward L. Bortz, Philadelphia, Pennsylvania, President, American Medical Association; Associate Professor of Medicine, University of Pennsylvania Graduate School of Medicine.

3:30 p.m.—Clinic—"Functional Disorders of the Digestive Tract," Walter L. Palmer.

4:30 p.m.—Clinic—"Clinical Lessons Learned in the Morgue," Paul R. Cannon.

5:30 p.m.—Visit the Exhibits.

6:15 p.m.—Dinner. Discussion—"Medical Management of Peptic Ulcer." Leader, Walter L. Palmer.

THURSDAY EVENING
OMAHA-DOUGLAS COUNTY MEDICAL SOCIETY NIGHT

8:15 p.m.—"Diverticula of the Digestive Tract," Walter L. Palmer.

8:45 p.m.—"Statesmanship in Medicine," Edward L. Bortz, Philadelphia, Pennsylvania, President, American Medical Association.

9:15 p.m.—"The Problem of Protein Hydrolysates and Protein Concentrates," Paul R. Cannon.

FRIDAY MORNING, OCTOBER 31st

8:00 a.m.—"The Use of Sulfathalidine in Chronic Ulcerative Colitis." (Motion Picture).

8:20 a.m.—"Folvite in the Treatment of Anemia." (Motion Picture).

PANEL DISCUSSION

8:45 to 11:15 a.m.

"WHAT IS BEING DONE ABOUT THE PRESENT PROBLEMS AND THE FUTURE OF THE GENERAL PRACTITIONER?"

This will be a round table discussion with plenty of opportunity for questions and discussion from the floor. The following topics will be considered:

"The New Section of General Practice in the Americal Medical Association;"

"Certification of General Practitioners;"

"The General Practitioner and the Specialist;"

"Hospital Service for General Practitioners and Their Patients;"

"Prepaid Medical Care for People in Smalll Towns and Rural Areas;"

"Home Town Medical Care for Veterans;"

"Opportunities for Postgraduate Study for General Practitioners and for a Specialized Training with the Idea of Limiting Themselves to a Specialty;"

Participating in the panel will be:

Harold C. Lueth, M.D., Dean, University of Nebraska College of Medicine (Moderator).

F. S. Crockett, M. D., Chairman, Committee on Rural Medical Service, American Medical Association.

General Paul R. Hawley, Chief Medical Director, Veterans Administration (or one of his staff).

Victor Johnson, M.D., Director of the Mayo Foundation for Medical Education and Research; Member of the Council on Medical Education and Hospitals, American Medical Association.

J. S. Jones, Executive Secretary, Minnesota Farm Bureau Federation.

Charles Marshall, President, Nebraska Farm Bureau Federation.

Charles H. Sheets, M.D.

Merrill C. Smith, Executive Secretary, Nebraska State Medical Association.

11:15 a.m.—Visit the Exhibits.

SYMPOSIUM
THE RH FACTOR AND ERYTHROBLASTOSIS

11:30 a.m. to 1:00 p.m.

"The Rh Factor in Obstetrics," Charles F. Moon, Omaha.

"Erythroblastosis Foetalis," John M. Adams, Minneapolis.

"Differential Diagnosis of Erythroblastosis," Paul N. Morrow, Omaha.

"Laboratory Aspects of the Rh Problem," John R. Schenken, Omaha.

Discussion.

1:00 p.m.—Adjourn.

PHYSICIAN'S ROLE IN SCHOOL HEALTH

A Conference on the Cooperation of the Physician in the School Health and Physical Education Program will be held October 16 to 18 under the auspices of the American Medical Association at the Moraine Hotel, Highland Park, Illinois. According to an editorial published in the September 20 issue of The Journal of the American Medical Association, the conference should help to clarify thinking with regard to school health services.

The editorial:

"Each year thousands of physicians serve our schools in varying capacities. In many communities they serve only as part-time medical inspectors who give medical examination to children entering school in the fall without medical examination by the family physician. In other communities the physicians are specially trained in school health service and are employed as full-time school medical advisers to work with pupils, teachers and administrators in carrying out a planned program of educational and preventive medical services and health guidance throughout the year. In other less fortunate communities little if any physician's service is provided in the school; only in epidemics of measles, scarlet fever, food-poisoning or ringworm of the scalp is the local health officer called for help and advice.

"Certain questions continually recur: is the time of the physician in the school most profitably spent in routine medical inspections; should physicians continue to cooperate in school medical inspection plans that fall far short of meeting minimal medical standards; is the Astoria plan of school medical advising in every way superior to the older plan of medical inspecting; should all physicians who serve schools have some preservice instruction in school organization and administration; what methods have been found effective for procuring the correction of physical defects found on medical examination; how can the physical education program be adapted to the varying needs of the individual children, and how can the health teaching program and the health service program best be coordinated?"

The coming conference, the editorial concludes, should facilitate the answering of such questions as these "as the result of the pooled efforts of physicians and public health workers, teachers, administrators and health educators."

WOMAN'S AUXILIARY

Dear Auxiliary Members:

Another year lies ahead of us. Let us all work to accomplish much. To do this we must organize as many new counties as possible and thus increase membership.

One of the recommendations made last year and adopted this year by the House of Delegates at Atlantic City, June 10, 1947, was: That each County Auxiliary have Study Groups so that they may become familiar with the various types of Prepayment Medical Care Plans. It is very important that we be able to disseminate this information for individual and community understanding.

Health education is another one of our responsibilities and one of our most logical mediums of this is through Hygeia. Let us all help our State Hygeia Chairman, Mrs. A. O. Fasser, and subscribe for Hygeia.

Keep informed on every phase of Medical Organization and its contribution to mankind by reading the Journal of A.M.A. and our State Medical Journal. You will find them very interesting reading.

One of our most enjoyable tasks is the furthering of friendly relations among the Doctors' families and also between the Auxiliary and other organizations.

Let us make this a very successful year.

Mrs. Maurice E. Grier, President.

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CASS COUNTY

President—Mrs. Lloyd Kunkel, Weeping Water.

NEWS and VIEWS

Dr. H. E. Eggers of Omaha was appointed to direct the State Health Department's cancer control division.

Dr. W. S. Petty, State Health Director, also said the department, in co-operation with the cancer committee of the State Medical Association and the American Cancer Society, plans to establish central cancer registry.

Dr. Eggers retired recently from the University of Nebraska Medical College, where he had been professor of pathology 30 years.

The Board of Trustees of the American Medical Association has appointed Dr. Wingate M. Johnson, professor of clinical medicine at the Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N. C., to fill the unexpired term of the late Dr. Charles W. Roberts on the Board of Trustees.

COST OF OPERATING MEDICAL SCHOOLS FOR '47-'48 WILL BE $43,000,000

"The cost of operating the medical schools of this country, exclusive of their teaching hospitals, will be somewhat more than $43,000,000 for the academic year 1947-1948. Less than one third of this sum will be obtained from student fees," according to an editorial in the August 16 issue of The Journal of the American Medical Association.

The editorial states in part:

"The fact that during the coming year medical schools will receive more than $31,000,000 from endowments, general university funds, gifts and tax sources is good evidence of the determination of university administrators, trustees and legislators to continue to provide a program of high quality in the field of medical education. That such a policy results in a rich return to the people in health, happiness and economic productivity has been demonstrated by experience. It is important, however, to point out that at least one fourth of our medical schools are still operating on grossly inadequate budgets and that the efforts of many schools are limited by budgets that are but slightly less inadequate. The solution to the problem of how to increase the financial support of medical education is urgently sought in many quarters. During the coming year medical school budgets will be supplemented by grants totaling about $10,000,000 from foundations, governmental agencies and other extra university sources. Relatively few of these grants are designed primarily to strengthen educational programs. The majority are awarded for the prosecution of specific research problems. It cannot be denied that many grants for research usually benefit the educational activities of the institution receiving them. However, a question that could be raised is whether the fundamental cause of medical education and medical science would be better served if more grants were available for the specific purpose of helping schools strengthen their educational activities. Those responsible for establishing and awarding grants should consider this problem . . . A policy of giving more direct financial support to the educational activities of medical schools can be fully justified. As effective research is the product of trained minds whose scientific curiosity has been stimulated, it is reasonable to believe that a greater investment by foundations and similar groups in improving the fundamental training of physicians as a class will ultimately bring a much larger return in scientific practice than will the expenditure of funds almost exclusively in support of the special activities of a few selected investigators."

THE HOSPITAL PROGRAM

According to a communication from Federal Security Agency, U. S. Public Health Service, Division of Hospital Facilities, the Hospital Survey and Construction Act, which became law in August 1946, has launched the most comprehensive program in the history of this country for the construction of hospitals and health facilities. To help communities realize the benefits of this legislation, the U. S. Public Health Service has just issued a series of five pamphlets.

"The Hospital Survey and Construction Act" is a summary of the law and regulations. "Why We Need More Hospitals" gives the story of hospital needs in this country. "The Hospital Act and Your Community" tells in simple terms what the program means to states and communities. "Hospital Quiz" is a series of questions and answers on hospital planning. "What is a Hospital System?" describes a coordinated hospital system, intended to extend the scope of hospital care. Sample copies of these pamphlets are available free on request to the U. S. Public Health Service, Washington 25, D. C.

The National Cancer Institute is now prepared to give aid to medical schools for further development of courses in cancer for medical students, Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service announced recently. For the first time the National Cancer Institute received authority from the Congress this year to make grants-in-aid to medical schools for this purpose. All of the grants made by the National Cancer Institute in the past have been for the support of research work on cancer.

This new activity of the National Cancer Institute is being inaugurated on the recommendation of the National Advisory Cancer Council which in turn based its recommendations on the results of a conference on cancer in the medical school curriculum held at the National Cancer Institute by a committee of medical educators.

Dr. Parran stated that the new program of aid to medical schools is designed to place greater emphasis upon the integration of cancer instruction in the total undergraduate curriculum. The deans of all medical schools have been advised that the National Advisory Cancer Council is prepared to receive applications for financial assistance in expanding their cancer teaching programs.

Grants will range from $10,000 to $25,000 per year depending upon the activities to be undertaken. Under provisions of the Appropriations Act that authorized this program, funds are available until spent. In order to assure continuity, the Surgeon General announces that funds have been set aside already for next year. It is anticipated that other agencies interested in promoting cancer control work will also give financial assistance to this program.

The Surgeon General added that plans are under way to inaugurate a similar program in dental schools on a somewhat smaller scale in the near future.

A research grant for the study of rutin has been made to the University of Nebraska by The Smith-Dorsey Company, a member firm of the American Pharmaceutical Manufacturers' Association, according to an announcement by the company's Director of Pharmaceutical Research, Dr. F. S. Bukey. The work will be under the direction of Dr. Harry Miller, director of the University's chemurgy project, a division of the College of Agriculture.

Rutin, which is derived from buckwheat, is used in the treatment of capillary fragility.

Dr. Miller intends to select varieties of buckwheat which are high in rutin content and conduct plant breeding studies in an attempt to develop a superior strain. He also intends to try a new method of extraction of rutin from the buckwheat plant.

Samples of the extracts obtained will be turned over to Dr. Bukey and H. P. Jensen of The Smith-Dorsey Company for further pharmaceutical study.

OFFICE OF THE SURGEON GENERAL
ARMY DOCTORS AND DENTISTS TO GET EXTRA $100 A MONTH

Major General Raymond W. Bliss, Surgeon General of the Army, announced recently that effective September 1 an additional $100 a month will be paid to all Regular Army Medical and Dental Corps officers as well as other officers serving voluntarily on extended active duty in these Corps.

General Bliss emphasized that this additional to the incomes of medical and dental officers is regarded by the War Department "not as a pay increase but as an equalization measure designed to bring the incomes of Medical and Dental Corps officers more nearly in line with those of civilian doctors and dentists."

General Bliss explained that "the additional compensation will also aid in reimbursing the medical and dental officers for the costs of their professional education and for their loss of earnings while in medical or dental school."

The Army will also follow a new policy of commissioning selected doctors and dentists in the Regular Army in grades as high as full colonel depending upon their age and professional qualifications. In the past, medical and dental officers entering the Regular Army have been initially commissioned only as first lieutenants. Wartime officers have been integrated into the Regular Army in grades through that of major. The measure authorizing appointment of Regular Army Medical and Dental Corps officers in advanced grade also provides for such officers to be credited, for purposes of promotion, with the minimum number of years of service "now or hereafter required for promotion of officers of the Medical and Dental Corps to the grade in which appointed."

The Surgeon General explained that these important changes in the Army's medical program have been made possible by legislation passed by Congress on July 26 and signed by President Truman on August 5. This measure is in the form of an amendment to the Pay Readjustment Act of 1942.

General Bliss said the $100 increase in compensation for Army medical and dental officers will benefit not only Regular Army but also Reserve, National Guard and Army of the United States officers. Former students of the Army Specialized Training Program who are required to serve on extended active duty are eligible for this increase in compensation when they apply for and are accepted into the Regular Army. Under study at present is the length of time which these Army Specialized Training Program-trained officers must serve on active duty before becoming eligible to apply for the regular establishment. This policy will be announced when formulated.

The enabling legislation limits the duration of these benefits to 30 years of active service.

The extra $100 monthly compensation will be paid not only to officers who are on extended active duty as of September 1, the effective date of the legislation, but to all eligible Medical and Dental Corps officers who are commissioned in the Regular Army, or volunteer for extended active duty within the next five years.

The Surgeon General stated that the enactment of this, and other leigslation including the "Officer Personnel Act of 1947," which established an accelerated promotion schedule, will enable the Army Medical Department to offer much greater advantages than it has in the past to doctors and dentists seeking careers in the governmental service.

WAR AFTERMATH HAMPERS GERMAN CIVILIAN MEDICINE

German medicine, once among the finest in the world, has fallen to an almost unbelievably low estate.

The load of patients is greater than ever before. Many of the hospitals and laboratories are in ruins. Some of the foremost physicians and medical scientists, closely associated with the Nazi regime, still are in concentration camps.

This is the word brought back from Germany by Major General Raymond W. Bliss, Surgeon General of the Army, who has just returned from inspecting American military medical installations beyond the Rhine. There is an extreme shortage of everything needed to care for the sick.

"The doctors may be politically minded," General Bliss said, "but they work now from seven in the morning until eleven at night, so that any political activity must come between the hours of 11:00 p.m. and 7:00 a.m."

General Bliss now has in mind setting up a residency training program for young American Medical Corps officers now stationed in Germany which not only would be of considerable value to the men themselves but would be some aid in the increasingly serious German situation.

Some of the army doctors, many of whom have just started on their professional careers, are acquiring limited experience because of the type of patients—American soldiers in excellent physical condition whose ailments usually are of the acute, short duration type. General Bliss would like to see them exposed to the vast amount of clinical material available in the German civilian hospitals.

"We have a large hospital with some 750 patients in the same immediate area with a German children's hospital where they have 500 to 600 patients," General Bliss said. "Our people are not taking full advantage of the clinical opportunities in the German hospital, and some kind of resident program should be worked out."

The same situation, he explained, exists in several centers where troops are stationed. A cooperative program, he feels, would help both the army doctors and the German patients.

MEDICAL CORPS RESERVE OFFICERS TRAINING CORPS PROGRAM 1947-48

The Army Medical Department Plan for peacetime operations requires that Medical Corps ROTC units be established and operated at sixty-six medical schools which are approved by the Council on Medical Education and Hospitals of the American Medical Association. It is contemplated that these units should obtain a total enrollment of approximately 8,000 students for all four classes and that they should be able to produce approximately 2,000 first lieutenants for the Medical Reserve Corps, beginning with the end of the academic year 1949-50.

During the past year such units were in operation in twenty schools which participated in the program prior to World War II. Since the units were just getting under way again, the total enrollment was only 481 students in all classes. No senior medical ROTC students were graduated, hence none were tendered reserve commissions. However, this is considered to be a good beginning.

Units will be organized at twenty-three new schoos for the academic year 1947-48, thus bringing the number of medical units up to forty-three. The remainder of the sixty-six schools will be contacted in the near future for the purpose of arranging for the activation of units for the year 1948-49. This is an ambitious program. However, it is thoroughly in keeping with the personnel requirements for medical corps officers in all of the various components of the Medical Department.

The course of instruction has been revised in keeping with the recommendations of the medical colleges and the experience of the medical service. It is designed to give the student progressive knowledge of the Army in general and the Medical Department in detail, together with familiarization with the many complex problems of military preventive medicine. Upon satisfactory completion of the academic and ROTC curriculum and the six weeks summer training period, the young reserve first lieutenant should be capable of taking care of himself in the Army and performing the functions of a general duty medical officer in positions which do not require leadership. Should he, if on active duty, be assigned to a troop unit he must be given further training.

Regular Army medical officers are being assigned as Professors of Military Science and Tactics for these units. For the most part these are individuals who have had combat experience and are in the younger age group. They are being given the opportunity to participate in graduate professional specialty training which will be credited toward the requirements for admission to the examinations given by the various American Specialty Boards.

The Council on Medical Education and Hospitals of the American Medical Association maintains a card index on 23,000 medical students, recording their progress through medical schools.

The Council on Pharmacy and Chemistry of the American Medical Association provides each year approximately 25 grants whereby research workers can obtain added funds to investigate some new phase of therapeutics.

KNOW YOUR NEBRASKA MEDICAL SERVICE

A monthly column interpreting the Nebraska Medical Service, presented in the interest of efficient Plan operation.

Incomplete filling out of claim blanks is the most common cause of delays in payment of claims. When insufficient information is given, blanks must be returned for additional data.

Patients applying for benefits must present their membership cards and supply group and agreement numbers.

When services have been rendered by more than one physician, separate claims must be submitted.

Home calls are not in any instance covered by the contract. Office treatment is covered only for conditions designated "O.T.P.*" in the Schedule of Benefits.

For information concerning the membership agreement and the Schedule of Benefits, please call or write the office, Ja. 5782, 330 City National Bank Building, Omaha.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

August 31, 1947

Cash on hand, August 1, 1947		$39,999.73
Receipts:		
From dues	$21,401.63	
From enrollment fees	926.00	
Taxes deducted from salaries	36.80	22,364.43
		$62,364.16
Disbursements:		
Claims paid	$14,885.00	
Administrative expense	4,177.60	
Salary, Executive Director	200.00	
Secretary's fee	75.00	
Medical Adviser	75.00	
Attorney	75.00	
Advertising	260.58	
Printing and stationery	173.26	
Hospital records	22.00	
Collection expense	19.61	
Refunds	233.25	
Exchange	1.00	
Taxes paid	-------	
Dues	15.10	
Home office travel and expense	76.81	20,289.21
Cash on hand, August 31, 1947		$42,074.95
Bank Balances, August 31, 1947—		
Packers National Bank, Omaha		$40,927.79
First National Bank, Omaha		1,147.16
		$42,074.95

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

August 31, 1947

Assets:		
Cash in bank	$42,074.95	
Premiums in process of collection	11,515.13	
U. S. Bonds (cost plus accrued interest)	50,083.05	
Associated Hospital Service, administrative expense refund account	28.15	$103,701.28

Liabilities:			
Accounts payable, Blue Cross		$ 4,558.32	
Accounts payable, monthly invoices		857.94	
Accrued payroll taxes		77.60	
Claims payable:			
Unreported		5,000.00	
Pending		3,960.50	
Accrued audit expense		200.00	
Unearned premiums		31,844.03	
		$46,498.39	
Reserve for Public Relations Campaign		$ 1,350.00	
Subscribers 4%			
Surplus Notes	$19,450.00		
Net income to date	36,402.89	55,852.89	
			$103,701.28

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

August 31, 1947

	Month of August	8 Months to Date
Income:		
From dues	$ 24,398.00	$155,987.88
From enrollment fees	926.00	6,032.00
Interest, U. S. Bonds	------	187.50
	$ 25,324.00	$162,207.38
Expense:		
Claims	$ 17,045.50	$115,266.50
*Administrative expense	4,530.17	26,952.30
Salary, Executive Director	200.00	1,600.00
Medical Adviser	75.00	600.00
Legal	75.00	600.00
Auditing	100.00	800.00
Advertising	326.77	2,388.85
Stationery	--------	81.34
Printing	529.17	2,740.62
Home office travel and expense	54.26	616.97
Dues	15.10	90.97
Postage	--------	64.22
Taxes and licenses	2.00	74.41
Collection expense	19.61	81.59
Miscellaneous	3.00	95.31
Insurance	--------	--------
Professional fees, E. K. M.	75.00	600.00
	$ 23,050.58	$152,653.08
Net Gain	$ 2,273.42	$ 9,554.30

*Administrative expense—August	$4,558.32
Less refund for July	28.15
	$4,530.17

MEMBERSHIP SUMMARY—AUGUST, 1947

		Subscribers	Dependents	Total
1.	Membership—August 1, 1947	13,459	18,679	32,138
	Additions	1,288	1,649	2,937
	Cancellations	246	260	506
	Membership—September 1, 1947	14,501	20,068	34,669
2.	Number of groups now enrolled			854
3.	Number of groups added during August			61

AUGUST ENROLLMENT BY COUNTIES

ADAMS—9 members.
Arthur—1 member.
BOX BUTTE—4 groups, 54 members.
BUFFALO—1 member.
BUTLER—2 members.
CUSTER—7 groups, 172 members.
DAWES—18 groups, 116 members.
DODGE—2 members.
DOUGLAS—7 groups, 231 members.
FURNAS—1 group, 3 members.
HALL—5 members.
JEFFERSON—1 group, 5 members.
KEITH—2 members.
LANCASTER—7 groups, 529 members.
LINCOLN—11 members.
MORRILL—2 members.
OTOE—2 members.
PLATTE—1 member.
RED WILLOW—12 groups, 104 members.
RICHARDSON—2 members.
SCOTTSBLUFF—4 groups, 28 members.
SEWARD—3 members.
YORK—3 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT

August, 1947

Number of claims paid	356
Number of services rendered	393
Females	203
Males	153
Subscribers	114
Dependents	242

Type of Service	Number	Amt. Paid
Anesthesia	9	$ 60.00
Appendectomies	27	2,700.00
Eye	7	230.00
Gall Bladders	6	900.00
General Surgery	31	1,775.00
Gynecology	18	1,825.00
Hemorrhoids	8	330.00
Herniotomies	3	300.00
Minor Surgery	59	413.00
Nose and Throat	1	20.00
Obstetrics	26	1,305.00
Orthopedics	32	1,438.50
Pathology	4	23.00
Radiation Therapy	-	-------
Tonsillectomies	66	2,300.00
Transfusions	2	35.00
Urology	9	225.00
X-rays	52	493.00
Medical	33	590.50
	393	$14,963.00

Amount of claims in process of settlement—$ 3,960.50

SOME EVALUATIONS OF THE PRESENT TREATMENT OF SYPHILIS AND GONORRHEA

The announcement in March, 1943, that penicillin was effective in the treatment of syphilis marked the greatest epoch in the handling of this disease since the discovery of salvarsen. At the time of this announcement the effect of the arsenicals and heavy metals on syphilis was well known and schedules were, in general, standardized. The advent of penicillin in this field of therapeutics brought much confusion which has not yet been entirely cleared away. This also introduced the only known drug which was effective against both syphilis and gonorrhea.

A great deal of research work has been done with penicillin on experimental syphilis in laboratory animals. An evaluation of the treatment of syphilis in humans with penicillin alone and in conjunction with other drugs has been constantly made since early 1943. This must continue for several more years before the actual value of this antibiotic is fully determined. Many schedules and routes of administration have been tried and some order is now appearing. The dosage has in general been increased, especially now that the drug is plentiful and relatively cheap. The trend now is to give a total dosage, spread over an optimum period, that will produce maximum results without wasting the drug. There is considerable evidence to show that a low blood level of the drug maintained over a considerable period of time is adequate and desirable for the treatment of syphilis. High blood levels for shorter periods do not give as good results as the above.

A popular schedule for the treatment of early syphilis is to supplement penicillin with arsenic and bismuth, both during the period of administration of the penicillin and for several weeks following. This schedule appears logical but the results of following several thousand cases, as reported by the U. S. Public Health Service, show that at the end of fifteen months the percentage of relapses is the same for both schedules; that is, penicillin alone and penicillin supplemented by arsenicals and bismuth. The arsenicals and bismuth appear to delay the relapses but do not prevent them.

The value of early treatment in syphilis has not been changed by the use of penicilin. In fact, it is probably further strengthened. Penicillin is quite effective in primary and secondary syphilis. It is less effective for early latent cases and is of doubtful value in late latent infections, though it does appear relatively good for some cases with neurological manifestations. This drug is of much value in the treatment of syphilis in pregnancy because it is non-toxic and the schedule of treatment can be completed within two weeks time. The value in the treatment of congenital syphilis is directly proportional to the age at time of treatment with the early stages being more responsive.

The private physician is often called upon to give penicillin to the patient who has had considerable treatment with arsenicals and bismuth and has become "serological-fast." Most patients are quite anxious to have their serological test become negative, and with the publicity that penicillin has received regarding its use in the therapy of this disease, they feel that it should produce the desired result. In this they will usually be disappointed, for this stage of the disease is least responsive to penicillin and very few cases will derive much benefit from its use.

Penicillin will not cure a higher percentage of cases than will the combination of arsenicals and bismuth, but does have the two advantages of non-toxicity and a short schedule of administration. These two advantages are very good and most desirable, but penicillin is certainly not a cure-all for the disease, as many lay people have been led to believe. The short schedule of treatment is quite important, for now more than 95% of the patients complete the penicillin course compared to 25% completing the eighteen months arsenical and bismuth schedule. The major emphasis in the over-all control of the disease has shifted from case-holding to case-finding.

The serological response to treatment by penicillin has also been a source of considerable confusion. When the arsenicals and heavy metals are used in the treatment of syphilis, the serological test is not expected to be reversed for several months. Following a course of penicillin the patient expects a negative test within a couple of months or so. A critical evaluaton of serological tests following treatment by penicillin and by arsenicals and heavy metals shows but little difference in the trend toward negative. It is wise to take blood for testing each month for three months and each three months for two years, and request the laboratory to make a titred test. The titre may rise for a month or two following penicillin in the early case, and then it should fall. The decline may be rapid or slow and some authorities believe a slow but progressive decline is an indication of better response in the patent than an abrupt fall. If the titre falls progressively or becomes stationary at a low level—1:1, 1:2, or 1:4—further treatment is not indicated. If the titre should rise over a period of two tests, it is called a serological relapse and retreatment is immediately indicated.

Penicillin is more effective in the treatment of gonorrhea than it is for syphilis. Reports of many series of cases show 85% to 94% cures with one course of treatment. Several series have shown no real penicillin resistant strains of gonococcus. Retreatment of the relapses with a combination of sulfathiazole and penicillin usually produces a cure.

Due to the fact that gonorrhea has a shorter incubation period than syphilis, the treatment of the former disease with penicillin sometimes masks a developing syphilitic infection. For this reason, it is wise to test the patient so treated a couple of months later to determine if he or she contracted syphilis at the time of acquiring the gonorrheal infection.

No schedules of treatment will be given here for either of these diseases. Readjustment of the dosage and schedules are made from time to time as evaluation studies are made. A study of the current literature should keep the physician posted on this phase of the treatment.

FRED LONG, M.D., M.P.H., Acting Director,
Division of Venereal Disease Control.

DEATHS

Everett B. Finney, M.D., Lincoln. Born near Weeping Water, Nebraska in 1867. Graduated from Hahnemann college in 1888. In 1889 he started to practice in Lincoln . . . served as city and county physician, was active in local and national politics, having served as delegate in several Republican national conventions. Dr. Finney was also active in professional affairs in the state and was closely connected with the establishment of the Orthopedic Hospital in Lincoln. He was a member of the American Institute of Homeopathy, the American Medical Association and local and state medical societies. He died in Lincoln on September 2, 1947. Surviving are his wife, Dr. Margaret Finney; a son, Dr. E. L. Finney, practicing in Lincoln, and a daughter, Mrs. Jeanette Ruby, Lincoln.

DR. E. B. FINNEY

Recognized as one of the city's ablest physicians, Dr. E. B. Finney had ministered to the sick of the community ever since 1889. Bluff in manner and outspoken of speech, he nevertheless never failed in a sympathetic attitude toward the ailing and in applying to their healing the wealth of knowledge garnered in his long years of practice. All of his adult years were spent in Lincoln. He took an active interest in its affairs, and as a member of the excise board supported the policy of limiting the number of drinking places. He also had been city and county physician. A native of the state, he served his people well and faithfully, and proved his value as a citizen.—From State Journal, Lincoln.

Rolland Cecil Woodruff, Grand Island. Born in Gibbon in 1888. Graduated from Rush Medical School in 1913, interned at Cook County Hospital, Chicago, in 1915. He located in Grand Island where he became associated with the late Dr. B. R. McGrath. Dr. Woodruff was outstanding in his interests, both professional and civic. He served as a member of the Board of Education for many years, and was president of the board in 1937. He was a trustee of the Baptist Church. He was president of the Hall County Medical Society and of the medical staff of St. Francis Hospital. Nationally, Dr. Woodruff was well known. He served as secretary of the Radiological Society of North America. He died September 9, 1947. Surviving are his wife and four children, one of whom is Dr. Bradley Woodruff living in Chicago.

William James Luxford, Decatur. Born in South Dakota in 1873. Graduated from Creighton University School of Medicine in 1909. He practiced for awhile in Leshara, Union and Walthill, and in 1910 he moved to Decatur where he remained in practice until the time of his death August 7, 1947. Surviving are his wife and four children.

Eugene M. Tyler, M.D., Auburn. Born in Tennessee in 1863. Graduated from University of Tennessee in in 1885; came to Nemaha County in the same year and started to practice in Auburn. He was active in civic and professional affairs and showed an active interest in the Methodist Church where he served in many capacities on the official board for many years. He was surgeon of the Missouri Pacific railway; he was honored by the Masonic Lodge several years ago following fifty years of devoted service to the order. He served as secretary and president of the county medical society and also served as delegate from the county to the State Medical Association Conventions. He died August 10, 1947. Surviving are his widow, two daughters and two sons.

John Conrad Giever, Spalding. Born in Iowa in 1892. Graduated from Creighton University School of Medicine, served his internship at St. Joseph's Hospital, Omaha, practiced for awhile in Dodge and Cedar Rapids, Nebr. He located in Spalding in 1926. He was active in civic affairs serving as mayor of Spalding for nine years. He was also active in the American Legion having served in the S.A.T.C., while in medical school. He died August 8, 1947. Surviving are his wife and three children.

HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

A newcomer to Bassett is Dr. Hubert Rodman, who formerly practiced in Glenwood, Ia.

Dr. Vincent S. Lynn has opened an office at Geneva. He formerly practiced at Winner, S. D.

Dr. Lincoln Riley, who has practiced in Wisner for 59 years, celebrated his 80th birthday in August.

Dr. L. C. Strough has been appointed director of the neuropsychiatric clinic of the Veterans Administration in Omaha.

Dr. J. C. Goldner has been appointed director of the Maternal and Child Health Division of the Omaha City Health Department.

Dr. Douglas Campbell has become associated with Dr. Walter Benthack at Wayne. Dr. Campbell formerly practiced at Madison.

Dr. Robert F. Day has opened an office at 830 City National Bank Bldg., Omaha, for the general practice of medicine and surgery.

Dr. Hodson Abbott has returned to Minden after a camping trip in Canada with a group of Boy Scouts of which he is an adult leader.

Dr. Albert S. Black, Jr., announces the opening of his office at 1613 Medical Arts Bldg., Omaha, for the practice of plastic and reconstructive surgery.

Dr. F. M. Heacock was honored guest at a picnic supper in Lyons in September. The doctor is moving from Lyons after practicing there for 16 years.

Dr. Donaldson W. Kingsley, Hastings, and Dr. Kuncl of Alliance attended the American College of Surgeons meeting in New York City in September.

Among Omaha physicians who vacationed at Sun Valley, Idaho, and have returned to their practices are: Drs. Earl Sage, J. Jay Keegan, Arnold McDermott, Adolph Sachs and Ernest Kelly.

The American College of Surgeons recently announced these admissions to fellowship: James D. Bradley, Omaha; Harry A. Jakeman, Fremont; William P. Kleitsch, Lincoln; Harry H. McCarthy, Omaha; William F. Novak, Omaha; Lynn E. Sharrar, Lincoln; Richard M. Still, Lincoln.

BOOK REVIEW

Curare, Its History, Nature and Clinical Use, by A. R. McIntyre, Ph.D., M.D., Professor of Physiology and Pharmacology, College of Medicine, University of Nebraska, Omaha, 240 pages, price $5.00 published by University of Chicago, Press, Chicago. This book represents an excellent collection of data on the history, pharmacology and clinical use of curare. Most of us know curare as a mysterious drug with few clinical applications. Its use has been limited to greater extent than its value, according to Dr. McIntyre's indications. And who in this country, at least, has greater authoritative knowledge of this drug than Dr. McIntyre? His clinical and experimental work with curare has drawn nationwide attention. It would seem almost inconceivable that a drug as little known as curare could be described in the interesting manner presented by the author. Unlike the dryness and stiltedness which usually characterizes descriptions of drugs, this book is written in a preeminently interesting style. We congratulate Dr. McIntyre on a difficult task exceedingly well executed.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1946. Cloth. Price, postpaid, $1.00, pp. 135, Chicago: American Medical Association, 1947.

This volume was formerly of most interest to those who wished to know why the Council on Pharmacy and Chemistry had not accepted certain of the preparations it had considered. The reports were mainly those of rejection; though, through the years, the educational nature of the Council's work was attested by status reports on drugs, or therapeutic procedures, or preliminary reports on agents showing promise of usefulness but not yet ready for adoption by the general and medical profession. In recent years, the tendency has been toward a preponderance of the educational type of report. In the present volume, both the condemnatory and the educational phases of the Council's work are represented.

There are three reports of vigorous condemnation: first, the report on Cabasil, a curiously unscientific mixture whose exploitation for use in a mulitude of diseases is aptly summarized by the sub-title of the report, "Quackery Unlimited;" second, the report on the pseudo-scientific Ethylene Disulphonate (Allergosil brand), a preparation of highly uncertain nature exploited to physicians for use in allergic conditions; third, Formula A-N-1, a joint report of the Council on Pharmacy and Chemistry and the Council on Industrial Health, concerning an expensive but poor substitute for aspirin and citrate of magnesia, cleverly promoted to industrial concerns for use in reducing absenteeism due to colds.

Among the status reports, the excellent article of Dr. Samuel M. Feinberg, "Histamine and Antihistaminic Agents," is probably most worthy of mention. Since its appearance, the Council has accepted for inclusion in New and Nonofficial Remedies, the two new agents of this class evaluated in the article, Diphenhydramine Hydrochloride, and Tripelennamine Hydrochloride (Benadryl Hydrochloride and Pyribenzamine Hydrochloride, respectively).

Pharmaceutical and scientific investigators, alike, will be interested in the informative report on the Council's new Therapeutic Trials Committee. Of special interest to manufacturers is a statement on the revised rules of the Council, though this exposition of the trends of Council policy is of concern to all who are interested in progressive rational therapeutics.

Attention is called to the several reports on the adoption of generic designations for drugs proposed or marketed under protected names. Not all such actions of the Council have been the subject of separate published reports; the recognized terms have appeared in the published descriptions of the drugs when accepted, and will be inserted in another Council publication, New and Non-official Remedies, as adoption of such designations for already accepted protected names proceeds.

Tuberculosis Abstracts

A wide segment of our adult male population had chest x-rays at induction into the Armed Forces. Unsuspected abnormalities of the lungs, mediastinum, thoracic cage and heart were disclosed, many in a presymptomatic stage. The most fruitful result of these surveys, however, has been the discovery of early pulmonary tuberculosis. In this age group, carcinoma of the lung was rarely encountered, but in the present surveys of industrial groups one of the lesions coming to light is asymptomatic circumscribed carcinoma of the lung.

CARCINOMA SIMULATING PULMONARY TUBERCULOSIS

The roentgen appearance of a circumscribed pulmonary carcinoma may be simulated by a solitary noncavitary tuberculous focus. In any large series of pneumonectomies for bronchial carcinoma, there will be cases in which lungs containing an isolated, large, tuberculous nodule have been excised. In the two cases reported here, the situation was reversed. These patients were treated for pulmonary tuberculosis for many months before the neoplastic nature of the lesions was recognized.

Case 1: A 61-year-old man had a roentgen film of his chest made in an industrial survey in December, 1943. He was told that he had a tuberculous lesion and was referred to his family physician. After further x-ray study, the physician agreed with this diagnosis. The film showed a faint amorphous density, about 2 cm. in diameter, in the subapical portion of the right upper lobe. The mesial and lower borders of the density appeared somewhat rounded and it faded off laterally into several streaks. A lateral film showed that the lesion was located in the posterior portion of the lobe, a predilection site for early tuberculosis. A chest film made routinely three years previous had disclosed normal lung fields.

He was sent to a tuberculosis institution but no tubercle bacilli could be found in specimens of gastric bacilli contents. Since he remained free of symptoms and the lesion appeared unchanged, he was discharged after eight weeks. Four months later, the lesion appeared denser and was 3 cm. in diameter. One month later there was further increase in the size and density of the lesion. The borders were sharper and the diameter measured about 4 cm. Another physician then thought that the patient had a circumscribed pulmonary carcinoma.

On admission to the hospital the patient was found to be well nourished. Physical examination showed no abnormality aside from slight clubbing of the fingers. Tubercle bacilli could not be demonstrated and bronchoscopy did not reveal abnormal findings.

The chest was explored on July 12, 1944. A walnut-shaped mass was palpated in the right upper lobe which was removed, together with the adherent right middle lobe and the regional lymph nodes. On section, the tumor was found sharply circumscribed and proved to be an epidermoid carcinoma. The lymph nodes showed no tumor cells. There was no evidence of a tuberculous lesion. There was no recurrence of the tumor two years after operation.

Circumstances leading to the correct diagnosis in the second case parallel those of the first.

Case 2: A woman of 43 had an industrial chest survey film made in April, 1944. A right upper lobe lesion was found and, after study, the patient was told that she had arrested pulmonary tuberculosis. There were no pulmonary symptoms. The shadow was faint, appeared oval-shaped and measured about 2 cm. in diameter. Its outer border was hazy and several streaks extended from it peripherally. Since tubercle bacilli could not be demonstrated in the body secretions, the patient was allowed to return to work.

Six months later a film revealed a few moth-eaten areas of lesser density within the shadow, but the size was unchanged. Three months later, the shadow was larger and stood out more sharply from the surrounding lung parenchyma. Eight months later the shadow measured 4 cm. in diameter. Ter physicians decided that she had active tuberculosis and recommended sanatorium care. She consulted another physician who thought that her film series indicated the presence of a slow-growing circumscribed neoplasm.

On admission to the hospital, the patient had no complaints and physical examination disclosed no abnormalities. No other primary site could be found nor was there any evidence of distant metastatic lesions. A posterior-anterior view of the chest showed a dense oval shadow in the right upper lobe. The lateral chest film showed the lesion to be located in the posterior portion of the upper lobe and sectional radiography disclosed several irregular areas of decreased density within it.

The first attempt to explore the chest was abandoned because the patient went into severe shock. At the second operation two weeks later a partial lobectomy of the portion of the lobe containing the tumor was performed. No involvement of the lymph nodes, pleura or chest wall was noted.

Grossly, the specimen showed a well circumscribed oval neoplasm; in its center were several small areas of necrosis; it was an adenocarcinoma. A small bronchopulmonary lymph node showed no tumor cells. No tuberculous lesions could be found.

These two cases point up some of the difficulties in differentiating a slow-growing circumscribed neoplasm of the lung and a solitary tuberculous focus, particularly when the lesion is situated in the upper lobes. A proper evaluation of the alterations in the appearance of the lesion on successive films was crucial in both these cases, since neither of the patients had any symptoms. Circumscribed bronchial carcinoma may be silent for a prolonged period and, in this respect, behaves like many cases of early pulmonary tuberculosis.

At the present time, physicians are aware that pulmonary tuberculosis produces few symptoms and signs at its onset and that the diagnosis must be made in this stage if the chances of recovery are to be maximum. This is no less true of the circumscribed varieties of bronchial carcinoma. Mass surveys and routine chest roentgenography are becoming the important methods by which operable pulmonary cancers are discovered. The two cases reported here were mistaken for pulmonary tuberculosis for seven and sixteen months, respectively, before they were admitted to a hospital for surgery.
—Carcinoma Simulating Pulmonary Tuberculosis, Louis E. Siltzbach, M.D., The American Review of Tuberculosis, February, 1947.

JOURNAL ASSAILS COMMERCIALISM IN MEXICAN MEDICINE

The exploitation of the medical profession in Mexico by unprincipled commercial agencies which offer "premiums" to doctors who prescribe their products for patients is criticized in an editorial in the September 13 issue of The Journal of the American Medical Association.

The editorial says:

Among the situations which strike the North American visitor peculiarly in some Latin American countries is the exploitation of the medical profession by unprincipled commercial agencies with ideals incompatible with the ethical standards of medicine as practiced in the United States. For instance, in Mexico there is an agency called "Productos Omega" which sends to every physician in Mexico a pack of forms on the cover of which there appears an illustration of a marble deskstand with two fountain pens. The printing indicates that the value of this little adornment is $40. The doctor is told that he is going to get this outfit absolutely free. All he has to do is write twenty prescriptions for the products manufactured by "Omega" and then return to the firm the stubs of the prescriptions which indicate the name of the product prescribed, the name of the pharmacist, the name of the disease and the number of the prescription. A reference to the products of this company reveals that they are the manufacturers of some of the most extraordinary shotgun prescriptions ever introduced in medical practice. One includes tuberculin mixer with "thiocol" (potassium guiacolsulfonate) and two other ingredients. Another, a mercury preparation, is offered for all gastrointestinal complaints, including typhoid, paratyphoid, colon infections, gastroenteritis and fevers. For the ladies there is a preparation called "contraseptol" said to be useful in irrigating all the cavities, which includes seven different ingredients; a uterine sedative contains hydrastis, viburnum, sarsaparilla and what not. Severeal unscientific preparations against malaria are included. North American medicine has fought a continuously gaining battle against this type of deterioration of medical science ever since the creation of the Council on Pharmacy and Chemistry of the American Medical Association in 1905. In the advancement of medicine in Latin American countries one of the first steps must be the elimination of the commercialism that saps the very vitals of medical science in those countries.

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HIGH-PITCHED VOICE IN THE MALE

"For over 25 years I have suffered the torments of the damned because of my voice," wrote a correspondent some time ago. "I am now over 40, married, and the father of three grown children, but my voice is high-pitched, thin, and piping like a woman's. It has given me a super inferiority complex, until I am afraid to meet people and shun all social activities."

Another correspondent writes: "When I telephone someone who doesn't know me the person invariably answers, 'Yes, ma'am.' I wanted to be a salesman but gave it up after a few days because of the embarrassment my voice caused me."

A third correspondent relates that his high-pitched voice caused him a great deal of mental suffering in the army because of the suggestive remarks of his fellow soldiers.

ANCIENT PREJUDICE

These three cases illustrate the unpleasantness typically associated with a high-pitched voice (or what we term a falsetto voice) in the adolescent or adult male. The unpleasantness arises out of the unfortunate stigma of doubtful masculinity which is popularly associated with such a voice and which dates back to antiquity.

Among the ancient orientals, as also during a later period in Greece, it was a practice to employ eunuchs for custodial purposes, and it was noted that one of the outstanding characteristics of such individuals was a high, feminine voice. Observing this phenomenon, the ancients concluded—and rightly—that there was a relationship between the voice and sexual development and vitality.

In Italy it became a custom in certain musical families to castrate boys and men for the purpose of producing males with high voices who could take soprano singing parts on the operatic stage and in the Sistine Choir. These male singers with female voices were called soprani falsetti, or "false sopranos;" hence, the modern "falsetto voice." Popular disapproval eventually drove the soprani falsetti from the operatic stage and church choirs, but unhappily this disapproval carries over into the present-day attitude toward the man with a high voice.

AN UNDESERVED STIGMA

This is extremely unfortunate, since in most of the cases of falsetto voice treated at the Hospital sexual deviations have little or nothing to do with the condition. In the majority of instances the voice disorder appears to have developed at puberty as a result of psychic or mechanical factors, or both.

Adolescence is a period of great change, when the whole organism is in a state of imbalance and the boy is markedly conscious of himself and of his sudden physical developments. If he is a highly sensitive boy, he may be more than ordinarily embarrassed by the puberal changes which take place at this time, and particularly by the voice change which gives to the world objective evidence that he is becoming a man. In his hypersensitivity he may unconsciously try to inhibit the voice change by clinging to his old childish treble. If this occurs, the constant misuse of the laryngeal musculature prevents the larynx from descending in the neck and thus causes the high voice to continue as a permanent feature.

The same thing may happen because of purely mechanical factors. During puberty there are pronounced changes in the form and size of the larynx, and these changes take place so rapidly that occasionally the boy is not able to adjust to them. Retaining the mental concept of his old high-pitched voice, he tends to hold the larynx in the familiar position that produced it. If this habit persists, the levator muscles remain in dominance and keep the larynx high in the neck so that the individual cannot produce anything but the high voice.

TREATMENT

Fortunately it is possible in the great majority of cases to correct a falsetto voice by lowering the position of the larynx and thus lowering the voice. This entails bringing the depressor muscles into play so that they assume dominance over the levators. After the larynx has been lowered by the medical specialist, the dominance of the depressor muscles must be reinforced by a period of voice training. In many cases psychotherapy is also indicated to counteract withdrawal tendencies and feelings of shame and inadequacy that have developed over a period of years.

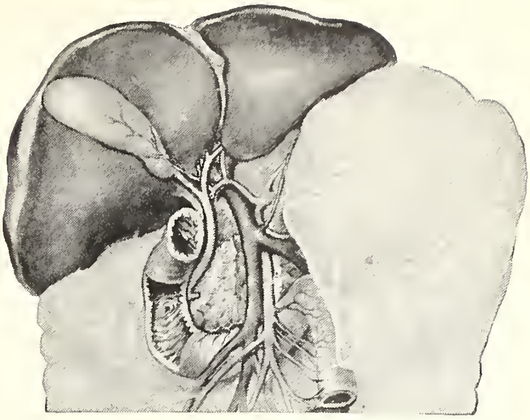
Of course, in a certain number of instances there are glandular involvements, and in such cases the voice disorder is but one aspect of the whole symptom complex. It is comparatively easy for the diagnostician to recognize the endocrine type, because the patient usually shows a quite apparent deviation from the normal. He may present the typical Froehlich syndrome, with its characteristic female distribution of fat; or he may present a picture of general under development, as in the case of twin boys seen in the hospital some years ago.

The boys, age 13, were referred to the Hospital by an endocrinologist to whose attention they had been brought because of their retarded physical development. They were stunted in growth and both spoke in a high treble. One twin was thereafter given endocrine therapy, while the other was not treated. At the end of eight months, the twin who had been treated was taller and heavier than his brother and looked more mature in every way. Therapy had brought about normal puberal changes, and in addition the patient's voice had become low and resonant. The untreated twin's voice remained high.

Such cases as the above, however, are the exception rather than the rule, and the usual patient with a falsetto voice does not differ in any marked way (other than in his voice) from the so-called normal male of his age. —From TALK

The Council on Pharmacy and Chemistry of the American Medical Association, to improve the proper use of drugs and to advance medical education, makes available several books on drugs that are used by interns, practicing physicians and pharmacists.

The Biographical-Directory Department of the American Medical Association was established in 1905 and the first edition of the American Medical Directory was published in 1906, listing 121,484 physicians in the United States and 6,689 in the U. S. dependencies and Canada. Today there are nearly 200,000 living physicians listed in its records.



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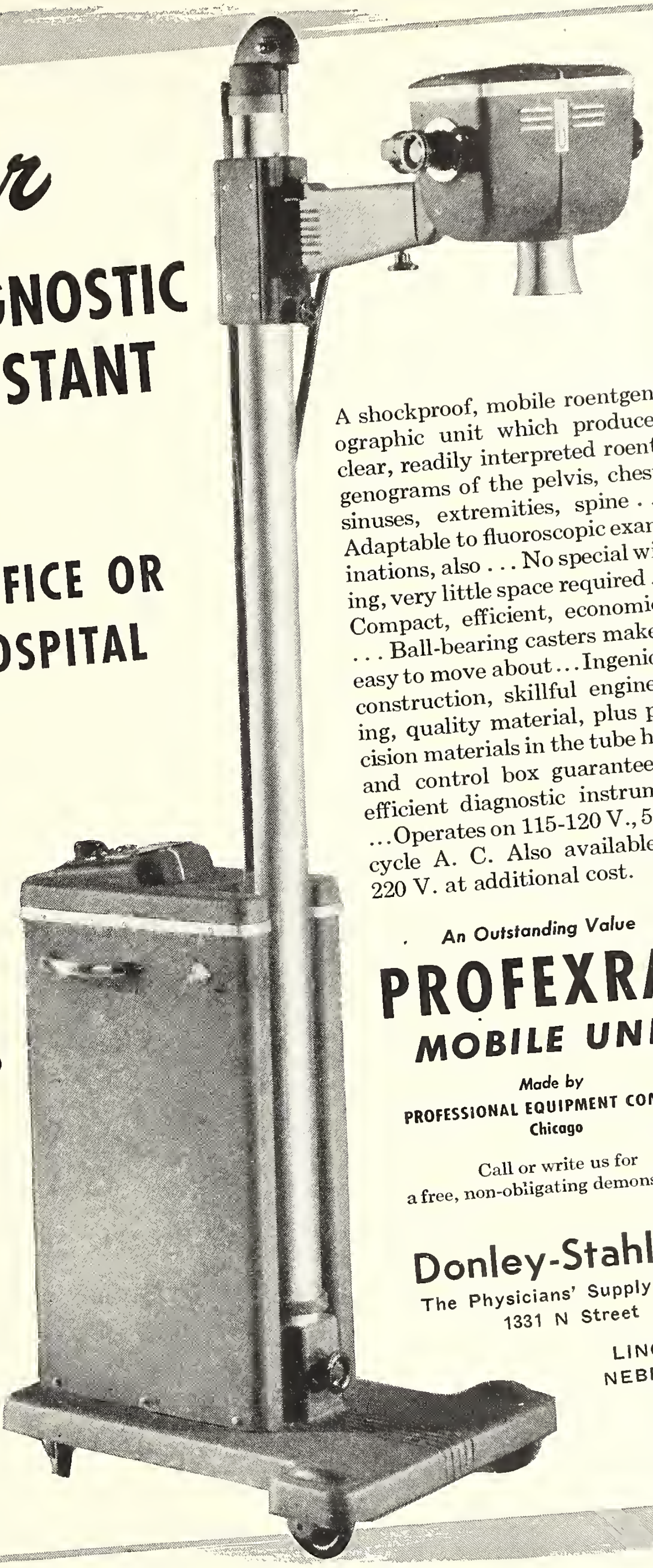

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DENTISTRY CAN PLAY IMPORTANT ROLE IN PREVENTING DEAFNESS

Many of the 10 million Americans who suffer with impaired hearing should be sent to a dentist, according to an article in the current issue of the Archives of Otolaryngology, published by the American Medical Association. And, says the writer, many fewer Americans would be so afflicted if more attention were paid to the roll that intelligent dentistry can play in the prevention and control of deafness.

The writer, David J. Goodfriend, D.D.S., of Philadelphia, is reporting on studies carried out in the department of dentistry, medicine and psychology of the University of Pennsylvania. Workers in this field, says Dr. Goodfriend, have established the importance of abnormalities of dental bite in producing certain hearing troubles "as thoroughly as Koch proved that the tubercle bacillus causes tuberculosis." Their studies point to dental treatment as the proper therapy.

Anatomical studies show that any abnormality of dental bite directly affects the eustachian tube, which brings about communication between the middle ear and the pharynx by adjusting air pressure in the middle ear to that of the air outside. Dr. Goodfriend's article does not claim that some such condition is at the root of every hearing defect, nor that the one automatically brings about the other. But it does state that such abnormalities "probably influence about 40 percent of all deafness."

Dr. Goodfriend found that:

—At the University's special ear and throat clinic, 23 of the first 25 patients with hearing complaints but without any abnormalities in the ear itself showed abnormalities of bite, or some position of the teeth which interefered with proper movements of the jaw in chewing.

Studies of a group of 168 dental students showed that 55 per cent had dental malocclusions; the hearing of this group was 13 per cent less than that of the other 45 per cent.

The study indicates that proper dental treatment of such cases often brings excellent results, particularly in younger patients. Seventy per cent of all deafness is of the progressive adult type which up to now has been considered incurable. Speaking from the University's studies and from 21 years of clinical experience, Dr. Goodfriend asserts that in certain patients proper dental treatment will help even progressive deafness of short duration, and in others it will slow down the rate at which the hearing is deteriorating. Furthermore, it will cure certain patients with neuralgia, or nervous pain, and dizziness due to ear trouble. The patient with a ringing in the ears may also be benefited.

Since so much depends upon how long the hearing has been disturbed, however, the keynote of this work is prevention. Writes Dr. Goodfriend:

"These facts should encourage the earliest practical treatment of dental abnormalities of bite as a preventive procedure."

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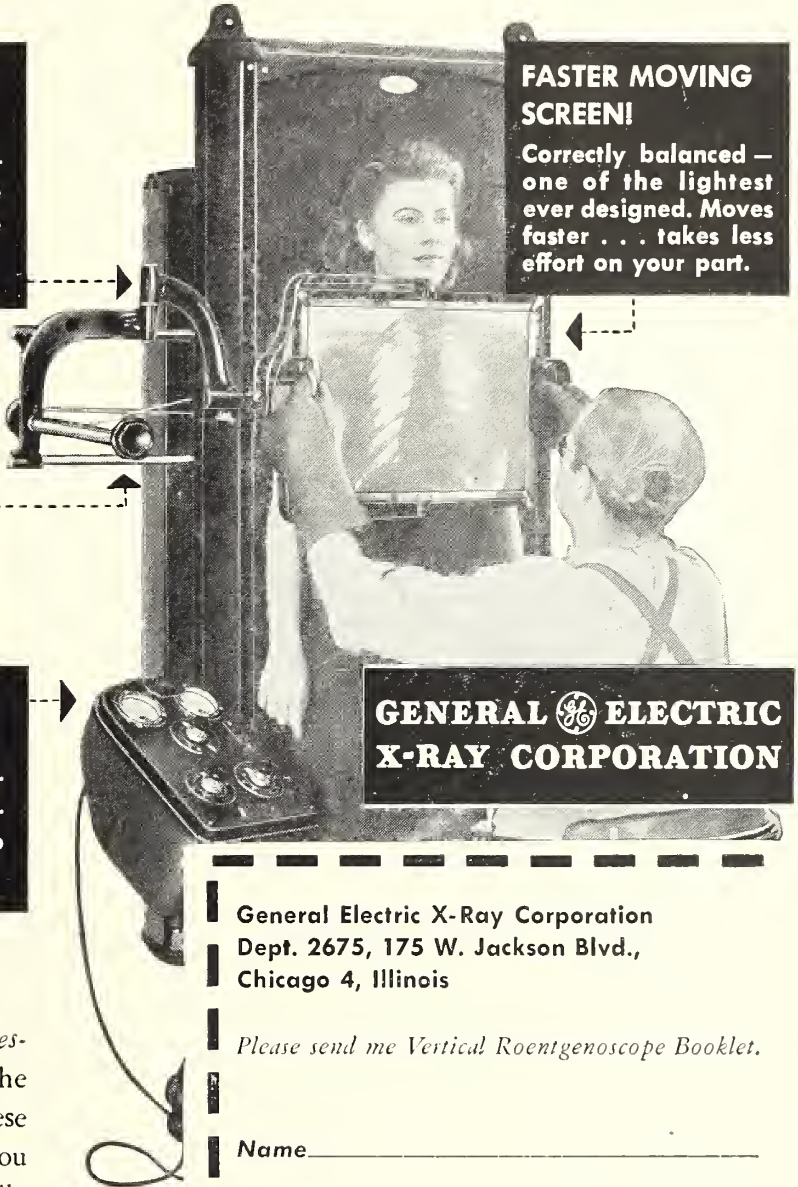

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DOCTORS URGE EARLIER INOCULATION AGAINST WHOOPING COUGH

Babies should be inoculated against whooping cough during the first six months of life, say three members of the Department of Pediatrics of the University of Minnesota Medical School.

Although 67 per cent of all deaths from whooping cough occur during the first year of life, many doctors believe that infants should not be inoculated until after the seventh month. This is because the ability of a newborn infant to form antibodies, the substane manufactured by the body cells to protect themselves against the serum is supposed to be comparatively low.

Writing in the current American Journal of Diseases of Children, published by the American Medical Association, J. M. Adams, M.D., A. C. Kimball, Ph.D., and F. H. Adams, M.D., all of Minneapolis, present a somewhat different conclusion. It was reached after observing the response in a group of babies who were given three weekly whooping cough inoculations within the first month of life.

The authors, who are also members of the Division of Preventable Diseases of the Minnesota Department of Health, comment:

"The fact that the infant at seven months of age is able to respond to immunization better than the newly born infant is rather weak evidence for withholding the immunization past the age of greatest risk. In private practice withholding immunization until seven months may be warranted only if the infant can be protected from exposure by a controlled environment. However, in public health preventive programs an earlier period would seem desirable. Furthermore . . . nonimmunized persons in a group derive protection from existing in a well immunized population. Thus the few infants who fail to respond to the vaccine are indirectly protected."

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The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, November, 1947 No. 11

EDITORIAL

AMERICAN NURSES' ASSOCIATION

On page 442 we publish a recent press release from headquarters of the American Nurses' Association. We submit this copy in the belief that physicians should keep themselves informed and enlightened on the problems of the nurses, and also on their evaluation of and reactions to those problems. Nursing service is so closely linked with medical service that the physician can ill afford the luxury of indifference toward any of the problems faced by the purveyors of nursing care. It is true that our interpretation of some of the problems may differ from that of the nurses, yet no departure from similarity in viewpoint can detract from our basic mutual interests.

It is not our aim to enter into a critical analysis on the contents of the copy under discussion, but two items bear comment here: First is the statement that inadequate economic security keeps young women from entering nurse's training. To improve this situation ANA proposes a system of collective bargaining. Perhaps we are a bit old-fashioned or over sentimental in our mode of thinking, for we have always considered nursing, like medicine, a profession dedicated to the service of mankind. Like the doctor, the nurse is entitled to a decent monetary return on services she provides, but somehow the terms "economic security" and "collective bargaining" do not fit in with the traditions of the profession. We are not trying to be facetious; we merely state our impression. Labor unions have their place in American life, to be sure, but it is extremely difficult for us to see how the ANA can adjust itself to the functional procedures of a labor union and at the same time retain its professional status among American institutions.

The second statement offers a challenge to our concept of nurses' education and nurses' training. We quote from the release: "The exploitation of student nurses by many hospitals has been a deterring factor in the effort made by the profession to provide an adequate supply of qualified nurses. Too many hospitals in order to obtain an inexpensive supply of nursing service have developed schools of nursing, but have sacrificed the educational needs of students to their own needs for nursing service." Most of us who are familiar with the curriculum of the modern training school have long been under the impression that the student nurse of today is generally overburdened with textbook material which has little or no bearing on her chosen professional career! No physicians with knowledge of history of medical education in this country would criticize the ANA for the efforts to improve its educational standards. However, the purpose of these improvements must be clearly defined and directed toward filling a need.

This Journal believes that inasmuch as nursing services are an integral part of medical care, in the public interest, the two professions must study the problems jointly. The functions of the nurse have undergone vast changes in the past quarter of a century. So have her duties, particularly in the hospital. Educational standards have improved and working hours have been shortened, thanks to the vigilance of ANA. The economic status has risen, though by standards of the skilled laborer the rise is not sufficent. But the statement applies to all other professions, particularly those in the salary groups.

We believe that insofar as ANA is endeavoring to elevate standards in the nursing profession with the aim of producing better nurses and better working conditions for these nurses, the organization deserves the admiration and encouragement of every physician. We have our misgivings, however, over the introduction of pressure methods utilized by some labor leaders who even if unintentionally have made labor unions unpopular almost to the point of destruction.

It is our sincere hope that the Council of the Nebraska State Medical Association at its coming Mid-winter session will see fit to consider the whole problem of nursing care and that a committee will be appointed to report to the House of Delegates of our Association at the Annual Assembly in May. It is plain that our nurses need our counsel and we feel confident that the two groups can go a long way toward a solution of the dilemma through honest and open exchange of ideas.

THE PSYCHIATRIC CLINIC AT NORFOLK

We welcome the out-patient psychiatric clinic recently established at the City Auditorium in Norfolk by the Norfolk State Hospital. Dr. George Charlton, Superintendent of the Hospital, and his staff are to be complimented on the decision of a central location for the clinic. Aside from the convenience and ready accessibility, patients who are sensitive about state hospitals will be relieved of their reluctance, if not fear or shame, in applying for such care as they may need or desire. The functions of this clinic, we understand, is preventive and diagnostic, and its primary objective is to halt the increase of mental disease in the area. Patients who present themselves for this service will be accepted on no fee basis, and a report of the findings will be sent to the referring agency and the family physician. The physician may then dispose of the case in whatever manner he deems best. If he feels that he can, he may care for the patient himself. If special technical care is necessary and the family doctor is not equipped to provide it he may send the patient to a psychiatrist on private status, or if the patient is unable to pay for such services he may be sent to the State Hospital for follow-up care.

The advantages of this clinic are too well appreciated by the readers of this Journal to require comment here. We are confident that it will be well received by the physicians in this area and that every doctor will lend his cooperation and encouragement toward its success in that section of Nebraska.

In this specialized field of endeavor we have been far behind other progressive states which have mental hygiene clinics in various sections to serve large and small communities. We hope that the clinic in Norfolk may be the first of a series of similar clinics under state or local auspices to which people with mental or emotional difficulties can turn for advice and guidance.

COMMUNICATION

Editor Nebraska State Medical Journal:

Some time ago your office was provided with a copy of Nebraska Statute Sec. 28-427 but no copy of the penal provisions, Sec. 28-428 were included.

The Penal Provision as set out in the Nebraska 1943 Statute reads as follows:

Sec. 28-428 — Violation — Penalty. Any person violating any of the provisions or requirements of Sections 28-424 to 28-427 or any part thereof, shall be guilty of a felony, and for each violation thereof, shall be punished upon conviction by imprisonment in the pententiary, for not less than one year nor more than five years, or by a fine not less than one hundred dollars nor more than two thousand dollars, in the discretion of the court.

This belated information may be too late to be of use in the October publication but notwithstanding that it may be of use in the following issue of the Publication in the answer to adverse reaction of those who feel that it is too much bother to pay any attention to Section 28-427.

Very truly yours,

JULIUS C. PIEPER,
Narcotic Agent.

Approximately 120 radio stations of the Mutual Broadcasting System have carried the program entitled "Stephen Graham, Family Doctor," which has been produced under the supervision of the Bureau of Health Education of the American Medical Association.

Certain Factors in the Surgical Approach to Thyroid Disease

LAWRENCE P. ENGEL, M.D.
Kansas City, Missouri

Dr. Curtis has, in his customary masterful manner, discussed with you the classification and diagnosis of goitre and I wish to discuss the actual surgical treatment.

There is no more satisfactory operation in all surgery than thyroidectomy but there are certain fundamentals or prerequisites which must be met in order that thyroidectomy is successful.

This presentation will be given entirely from lantern slides in the hope that the subject can be covered more concisely in the shortest possible time.

There are three essentials for good results from thyroidectomy, the first being correct diagnosis. It is not within the scope of this talk to discuss the differential diagnosis but I would like to mention the one type of case which I think gives us most of the trouble and that is the psychoneurotic or the nervous patient. Dr. Herbert Davis wrote an excellent article some four years ago on the differential diagnosis between nervousness and hyperthyroidism.

The difficulty comes frequently from the fact that a post-thyroidectomy patient who has experienced excellent results will tell a friend of hers who is simply nervous that she must have a goitre; the friend shows up and too often thyroidectomy is done.

Again we see patients because their physician, more or less weary of treating the nervous condition, is finally crowded by the patient for a diagnosis and, in passing, he simply says "You have an over-active thyroid," and thyroidectomy at once comes into the patient's mind. Actually operation in these patients makes them worse. The correct diagnosis is absolutely essential if we are to get good results from thyroidectomy.

The second point I wish to emphasize is the proper time for surgery. Hyperthyroidism tends to run in cycles of crises and remissions. Operation at the wrong time is difficult and the patient does not make a satisfactory recovery and the recurrence rate is higher.

Third, a well-executed operation. That means, in most instances, the adequate removal of thyroid tissue. The tendency now is to remove as much thyroid tissue as is possible or perhaps we might say, all thyroid tissue that is diseased.

It has been mentioned that in exophthalmic goitre a total thyroidectomy should be done because the entire gland is involved. That, in our experience, is not necessary. A radical or maximal subtotal suffices in cases of exophthalmic goitre. In nodular goitre it is essential that all the nodules be removed, and in most cases this means a radical removal.

We feel very keenly about the hyperthyroid patient with predominant cardiac symptoms, and in these cases we do a total thyroidectomy, especially in the older age group. In some of the younger patients, even though the cardiac symptoms are predominant, we may temporize and do what we term a maximal subtotal.

As the patient approaches the thyroid crisis he will at one stage have the same metabolic reading as he will have as he approaches the remission. However, a plus 40 on the upward curve toward a crisis is an entirely different plus 40 than it is on the downward curve toward a remission. In the first instance the gland is in a proliferative stage, very vascular and friable whereas in the second instance it is approaching the resting stage of colloid storage.

It is not necessary to take a series of metabolic tests to determine just where the patient stands as regards this so-called thyroid crisis. Simply ask the question as to her progress, if she feels better now than she did a week or so ago, especially about the weight, should be sufficient. The weight is the all-important thing. If a patient is still losing weight, the chances are that she has not yet reached the crisis. If she is gaining weight, she is headed for a remission and that is the proper time for surgery.

So in handling severe cases of thyrotoxicosis, our routine is to put them to bed, put them on a high caloric, high carbohydrate, high protein and low fat diet with the addition of calcium. The caloric intake in these patients oftimes has been 6,000 to 8,000

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*Read before the 78th Annual Convention of the Nebraska State Medical Association, May 6-9, 1946.

calories or even more. As soon as the patient starts to gain weight, she is then lugolized and surgery is carried out.

Now as for the operation itself, we do not believe in "stealing" the gland.

A very significant fact is that at the clinic where the method originated it is no longer in use. We feel that if a patient is not in condition for operation you should not try to sneak up on her, so to speak, and steal the gland.

Another thing was found out in the Clinics where this method was used. The patient who had been through a thyroidectomy tells the prospective thyroidectomy patient that after she enters the hospital she will not know exactly when the operation will be and therefore the patient is suspicious of every move that is made, and is kept in a steady, constant state of nervous turmoil.

So we wait for the patient to pass the crisis and tell her ahead of time just when the operation is to be.

As for the anesthetic agent used, we use local infiltration in approximately 80% of our cases. Solutions stronger than ½ of 1% are never used. It is not so much the strength of the solution as it is the place in which it is put, and we have no hesitancy in using small amounts of adrenalin in all cases, even the exophthalmic goitre cases.

The average amount of novocaine used is seldom over an ounce and never over an ounce and a half. Therefore, the patient gets from four to six minims of adrenalin. The only effect we have observed is that the patient has a little palpitation for a time but other than that, no harm is done.

If the patient is to go to sleep, we use ether by the closed method. Nitrous oxide has to be given in too large a concentration, not enough oxygen can be given with it and cyclopropane, which we used for a time, was discontinued because of the danger of the agent. The effect upon the heart and the maintenance of blood pressure due to the cyclopropane may be misleading, the patient may develop a ventricular flutter or, after surgery, go into shock which is not apparent at the time of the operation.

Likewise in toxic goitre, the patient requires plenty of oxygen and with cyclopropane the anesthetic has to be given in concentrations of 25% to 35%, whereas with ether by the closed method, anesthesia can be maintained with a concentration of ether of 4.5% to 5%, so you can readily see that the patient will get enough oxygen at all times.

Even with a general anesthetic, we use infiltration of novocaine to facilitate the dissection and also it cuts down the postoperative pain in the incision.

The preoperative medication differs somewhat according to whether or not the patient is to have local or general anesthetic, and it must be checked the morning of the operation. In a patient who is to have local anesthesia, too much premedication will make him uncooperative, so we have the supervisor check before the preliminary hypodermic is given and it is omitted if the patient is sedated too much and will not cooperate.

These are some points which are important in thyroidectomy: First of all is good exposure. In some clinics the ribbon muscles are divided routinely. We do not do that unless a very large goitre or a friable vascular goitre is present and then we have no hesitancy in transecting the ribbon muscles.

Complete delivery of each lobe is imperative, so that deep nodules will not be overlooked.

Entrance into capsule at the emergence of the middle vein. That is perhaps the most important single point in thyroidectomy, and is the one that was emphasized by Dr. Hertzler: In order to enter the capsule the vein must be divided to facilitate complete delivery of the lobe.

Ligation of the superior vessels immediately above the gland. Many recurrences at the superior pole are due to the fact that the ligature has included too much of the thyroid gland.

Removal of the pyramidal lobe. Many recurrences take place immediately over the trachea, so a search is always made for an extension of the goitre up in the suspensory ligament or, when present, what is known as the pyramidal lobe.

Meticulous hemostasis. We do not need to emphasize that.

Irrigation of the wound with saline solution before closure.

Drainage only of substernal dead space or occasional oozing bed. We find that by irrigating the wound before it is closed, we are able to close practically every case without drainage and recently, in even some of the large beds in which there is some oozing, we have used fibrin foam with which we have had excellent results, so that at the present time we drain very few of the cases.

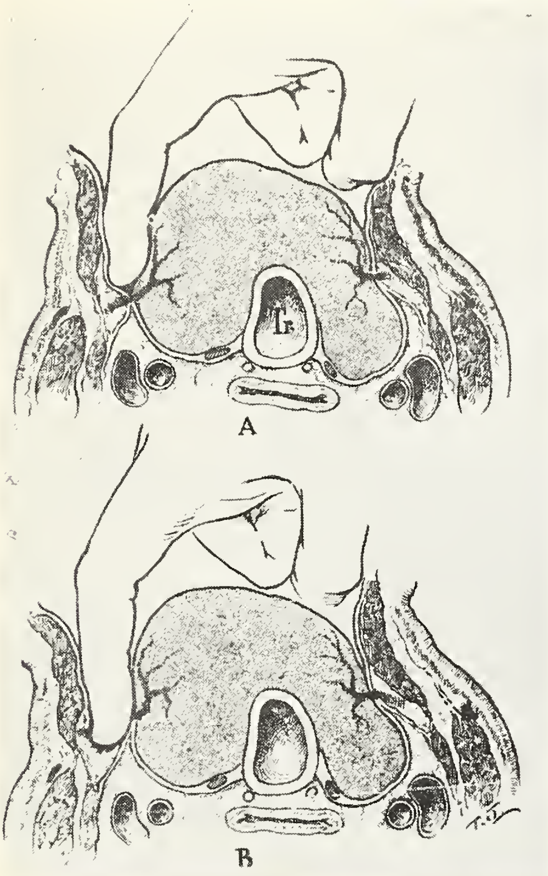

Fig. I

A. Shows the division of the fascia at the emergence of the middle thyroid vein. One layer goes to the carotid sheath, the other covers the posterior surface of the gland anterior to the recurrent nerve and the parathyroid glands.

B. When the vein is torn by blunt dissection the operator will usually find himself against the carotid sheath and as he works medially behind the other layer of fascia, he will immediately be in the dangerous zone containing the recurrent nerve and parathyroid glands. It is in the control of bleeding in this zone that these important structures are most frequently injured.

We have the same idea as that expressed by Dr. Curtis—that it is not necessary to expose the recurrent nerve routinely but if there is any evidence of injury it must be dissected out and, if included in the ligature, of course must be freed.

Some of the complications in the immediate postoperative care might be discussed:

Hemorrhage with tracheal compression. This constitutes an emergency and its recognition depends entirely upon the alertness of the house staff and the nursing staff. Any patient who has undergone a thyroidectomy and has been returned to the bed with open airway and begins to have difficult breathing should immediately be investigated and in case of extreme emergency, the wound can be opened and the clot expelled without delay. Then the patient is taken to the operating room and the hemorrhage checked.

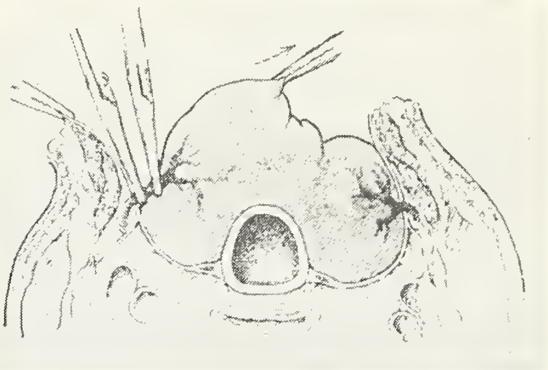

Fig. II

By dividing the middle vein between hemostats, the plane of least resistance will be between the medial leaf of the fascia and the gland anterior to the recurrent nerve and parathyroid glands.

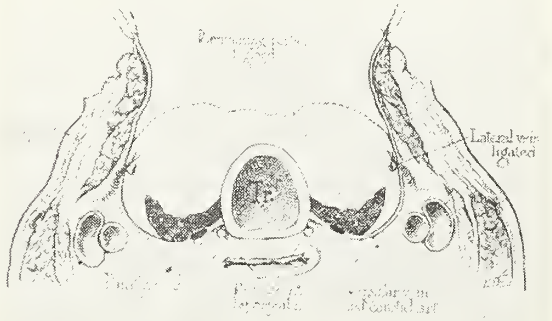

Fig. III

A cross section of a subtotal thyroidectomy, showing again the ligation of the middle or lateral thyroid vein. The lateral margin and capsule of the resected lobes are sutured to the tracheal fascia before closure of the incision. This is an added hemostatic measure and by closing the cut surface of the gland, postoperative drainage is lessened.

Second, the post-thyroidectomy crisis or hypermetabolic storm is simply hyper combustion. If the patient is in a positive nutritional balance with sufficient calcium, and has gained weight, he should not have a post-thyroidectomy storm. Also, multiple stage operations are not necessary if the patient is in proper condition prior to surgery.

Injury to the recurrent laryngeal nerve, if unilaterally produces disturbance in speech for a time, but in most cases there is a compensatory adjustment in which the normal cord crosses the midline and approximates with the paralyzed cord and gives a very satisfactory voice.

One word about bilateral nerve injury. That may be misleading and many patients do not show the worst symptoms from bilateral nerve injury until weeks later. Following thyroidectomy, it is possible to have both nerves injured, the patient talk, have some difficulty in breathing but not too great, and at the end of several weeks this becomes worse and finally the patient is rushed in for a tracheotomy.

The explanation is that the flaccid cords allow respiration for a certain length of time but as soon as the cords become fibrosed in the adductor position, the respiratory chink is not sufficient and suffocation comes on unless tracheotomy is performed.

The characteristic sign of a bilateral nerve injury is the crowing inspiration at the end of a sentence or after exertion.

Parathyroid tetany is seldom encountered if care is taken in the technic and, that is, to stay within the true capsule of the gland.

In conclusion I would like again to emphasize just a few points:

The diagnosis should be carefully made and the patients carefully selected for thyroidectomy. If the patient is a bona fide case of hyperthyroidism, of toxic goitre, there is no better result from any operation than from thyroidectomy . The patient should be properly prepared for surgery. He should be gaining weight, should be in a positive iodine and calcium balance and the operation should be adequate.

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Diverticulitis of the Colon*

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Diverticulosis may occur in any portion of the intestinal tract. It is seen occasionally in the esophagus, stomach, jejunum and ileum, slightly more frequently in the duodenum, and commonly in the colon. Walker recorded 225 instances of involvement of the small bowel and stated that the condition was found four times in a consecutive series of 300 autopsies. The location in the small bowel is the same as that observed in colonic diverticulosis; namely on the mesenteric border near the perforating arteries. It is interesting to find that 22 cases of diverticulitis of the small bowel were found in this group, associated at times with hemorrhage and with evidence of perforation. (Complication of Acquired Diverticulosis of Jejunum and Ileum,—Walker, R. W., Brit. J. of S 32 457, (Apr.) 1945).

Diverticulosis of the colon was first described by Sommering in 1794 and was clarified as an anatomic entity by Chevelhier a century ago. In 1853 Virchow recognized and defined diverticulitis as a clinical entity; its clinical clarification is still in evolution.

The accumulation of roentgenographic data since 1914, when the condition was first revealed by x-ray, now permits us to conclude that the condition is acquired and not congenital. If it were congenital or even acquired in infancy it would be found commonly in children as is Meckels' diverticulum. As a matter of fact, diverticulosis of the colon is uncommon before the 35th year, frequent after the 45th year and the rate becomes stationary after the 60th year.

The theory as to the mechanism of the occurrence of the sacs is still controversial. The one most frequently mentioned is usually credited to Klebs who, in 1869 directed attention to the relation of the diverticuli to the point in the bowel wall that blood vessels traverse it. He also noted that many sections of the bowel that contained diverticuli had a short mesentery and that the dragging effect of the blood vessels supplying that portion of the bowel might produce diverticuli. Spriggs also subscribed to the theory that diverticuli were related to the points where blood vessels pierce the bowel wall, but that diverticulum formation was preceded by some pathological change in the bowel wall. Lockhart-Mummery takes issue with Spriggs' statement that some inflammatory condition of the bowel wall itself precedes diverticula formation. He thinks the mucosa herniates where the blood vessels pierce the walls of the bowel and that this is the initial process. He admits the possibility of some degenerative change of the bowel wall allowing the herniation to occur, but thinks that any inflammatory change is always secondary.

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*Read before the Omaha Mid-West Clinical Society, Omaha, Neb., Oct., 1946.

When Louis Wilson, in 1911, found four cases of carcinoma in association with diverticuli of the colon in fifteen specimens, he was convinced that this association was intimate. The publication of his work and other similar observations were no doubt responsible for a general opinion which obtained for some years that carcinoma was a usual sequel to inflammation of colonic diverticuli. The study of a larger series of cases in more recent years has indicated that this relationship, while not rare, may be regarded as purely coincidental. Since carcinoma and diverticulitis are both lesions which occur chiefly in the left colon and in mature individuals, it is to be expected that both lesions would occasionally occur simultaneously. Rankin and Brown, who found only four accompanying carcinomas in a series of 227 cases of diverticulitis, believed that this parallelism of lesions had been over-emphasized.

It is being discovered, however, that coexistence of both conditions or, more frequently, the presence of a malignant tumor in an individual with diverticulosis occurs sufficiently often to preclude any feeling of false security in the surgical management of this condition. A recent report by Martin and Adset analyzing 200 cases of diverticulitis observed in the New York Hospital in the decade ending in 1944 revealed that it was impossible to make this diagnostic distinction pre-operatively in 13 of the cases and that 4 of these individuals had carcinoma. (Diverticulosis and Diverticulitis. Martin, K. A. and Adset, C. G. Jr. Med Clin. of N. Amer. 29 639 (May) 1945).

It is my opinion that the passage of blood from the bowel has been under-emphasized as one of the symptoms of diverticulitis. Previous opinion concerning the incidence ot bleeding as a direct result of diverticulitis was well expressed by Rankin and Graham in their text. (Rankin, F. W. and Graham, A. S.: Cancer of the Colon and Rectum. P. 117, Baltimore; Chas. C. Thomas, 1939).

"Blood in the stool is of little significance in diverticulitis, and although it is present in a number of cases, usually proctoscopic examination will reveal that the presence of the diverticulitis has little, if anything, to do with the presence of the blood."

Bleeding has been a frequent concomitant or presenting symptom in individuals with diverticulitis coming under our observation. We have previously reported a series of office patients in which 50 per cent gave a history of hemorrhage not explained by any other lesion. In one-half of the cases the blood was constant, slight in amount and either mixed with the stool or with mucous. (Rosser, Curtice: The Surgical Management of Diverticulitis. J. of Sou. Med. Assoc., 32, 1203, 1939). In others it was spontaneous, massive and dark. I have continued to note bleeding as a common finding, but we have seen no cases which required surgery because of hemorrhage alone. In Martin and Adset's series, hemorrhage was a clinical factor in 17 of the 200 hospital cases and in the individuals where hemorrhage was observed, the lesion perforated in ten instances with one fatality.

I have seen the statement that sigmoidoscopy is of little value, but within recent years the reverse of this has been found to be true. While in no way does it approach the usefulness of the x-ray as a diagnostic method, it does have a definite place and should be carried out, preferably before, and in addition to studying the colon roentgenologically. The procedure should be relied upon for the additional information that can be gained by it rather than looked upon as a competitive method inferior to x-ray.

Jackman and Pumphrey at the Mayo Clinic made a careful study of 242 cases in which both proctoscopic and roentgenographic examination were made. (Jackman, R. J. and Pumphrey, R. E.: The Significance of Proctoscopic Findings in Diagnosis of Diverticula of Colon. Proceedings of the Staff Meetings of Mayo Clinic, 14:596, Sept. 20, 1939). In the group 34 per cent were reported normal sigmoidoscopically. In 66 per cent, some evidence of the presence of the diverticula which were later seen by x-ray was ascertained by use of the proctoscope. In 14.5 per cent the actual diverticula was observed; in an additional 29.7 per cent of the cases, sacculation was seen and x-ray was advised for this reason and in the remaining 53 cases, other findings were demonstrated which strongly suggested to the examiner the presence of diverticuli of the sigmoid, which opinion was later confirmed by colon ray. Among the findings recorded were immobility, sharp angulation, narrowing of lumen, ademaextrarectal mass, inability to pass the instrument the usual distance—these findings existing usually in combination.

It is commonly thought that the presence in an x-ray film of one or more diverticuli tends to establish the lesion as being benign rather than malignant. Unfortunately this is not true. A certain number of individuals with carcinoma of the colon have diverticulosis in addition. At my request, Mr. Cuthbert Dukes, pathologist to St. Marks' Hospital in London, was kind enough during my visit to that institution in the summer of 1939 to review the specimens in a recent series of one hundred cases of carcinoma of the left colon and rectum which had been removed by a sufficiently extensive procedure (abdomino-perineal resection) that a large amount of adjacent bowel was available for study. He found that in 12 per cent of this series of carcinomas the bowel was also the seat of a diverculosis or diverticulitis, not, of course, in direct association with the malignancy. It is therefore quite important that the differential diagnosis not be made on this evidence alone.

It is now generally agreed that surgical maneuvers should be limited to the complications arising from a long-standing chronic peridiverticulitis and cases of an acute type in which local catastrophes have occurred or are impending. Moreover, even here the tendency is toward conservatism and we now believe that a temporary colostomy alone should be the first step in surgical treatment unless abscess formation requires drainage in addition. If obstruction is sufficiently complete, preliminary cecostomy, to be followed in a few days by colostomy, may be the procedure of choice. Almost never may the descending colon be used for colostomy nor should any but the gentlest exploration on the left side be attempted for fear of inducing peritonitis. Moreover, as resection of the involved area is indicated later, a sufficient length of bowel may not be available for both procedures unless the intestinal vent is placed in the transverse colon.

When healing has progressed sufficiently, the lower opening permits copius warm saline and sulfasuxidine, through and through, irrigations of the affected bowel. The colostomy should be permitted to function until the subsequent operative procedure is completed.

Within recent years we have observed in our own work that individuals with stenosing diverticulitis who have carried a colostomy for a prolonged period and, having obtained definite recession of the tumefaction and sufficient increase in the caliber of the bowel lumen to, presumably, permit closure of the colostomy have not infrequently presented themselves later with disturbing recurrences of their disease. The inflammatory reaction may reappear, a tumefaction may recur and by descending into the lower pelvis produce angulation and pain or the patient may suffer from chronic obstipation.

The experience of surgeons all over the country is, I believe, confirming this attitude. Their observations have demonstrated that when these diseased segments of colon have been removed the changes which are found are so permanent in nature as to preclude hope for a reversal to normal. Moreover, the tendency of carcinoma to appear in a bowel already containing diverticula and the common difficulty experienced in differentiating diverticulitis and carcinoma are arguments for a more definite and radical approach to the problem.

It is agreed that the major manifestations of diverticulosis occur in the sigmoid regardless of the extent of the preceding diverticulosis. This localization is apparently due to the smaller bowel calibre, the presence of firmer fecal masses more likely to produce fecaliths in the pockets and the tendency of the bolus to be retained for long periods above the rectosigmoid canal. For this reason, extirpation of involved segments in this area gives promise of permanent relief from serious complications. Compared to many other abdominal conditions of a surgical nature diverticulitis is still sufficiently novel to make it probable that the optimum method of management has not even now been arrived at but it is evident that our methods during the past quarter of a century have not been ideal.

CONCLUSIONS

1. The management of diverticulitis is one of the most difficult problems in bowel surgery, more difficult than that of malignant lesions.

2. Even though diverticulitis does not cause malignant degeneration in the bowel, these two conditions may be coexistent and their differentiation is often impossible.

3. A method of management which im-

poses a waiting period of nine to twelve months following the construction of a colostomy for diverticulitis before deciding whether resection is indicated places an unwarranted burden upon the patient and leaves the question of a possible additional lesion unsolved.

4. With all the information afforded by proctoscopic examination, roentgenogram and laboratory findings previous to celiotomy, the surgeon should be competent to determine, with the added benefit of minimum exploration of the tumor, whether or not resection is indicated.

5. If resection is to be done for diverticulitis, the condition of each patient following the colostomy should determine the length of the interval before the lesion is removed.

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Transfusion Reactions and Complications*

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Any untoward reaction, either subjective or objective, on the part of a patient who has received a transfusion of blood, and which reaction is due to the administration of the blood, may be classified as a transfusion reaction. This is a rather broad definition, and no doubt includes reactions which in all likelihood should not be attributed to the administration of blood. But narrowing the definition at once presents difficulties which no amount of defining can solve. Many so-called reactions occur at such a time in relationship to the transfusion that it is impossible to distinguish them from the symptoms exhibited by the patient's disease.

Fortunately, most of these are mild nonfatal reactions because of improved methods of blood matching.

The average fatality rate (Wiener) reported in recent years (1938-1941) is only about 0.1%, but the total reaction rate is reported as being anywhere from 1% to 30%. At Mayo clinic during a two year period from 1937 to 1939, the "untoward" reaction" rate was 9.4%. Our own rate at Methodist Hospital is between 5 and 7%. Many reports show a lower rate, but most authors agree that a rate up to 5% is still about as well as can be expected. This seems like an excessively high figure—one out of twenty—but for anyone whose job it is to try to prevent these reactions, it is welcome news that your colleagues over the country don't seem to be able to do much better than you do, often despite much better equipment, better facilities, and a larger personnel.

In trying to run down and eliminate transfusion reactions, I often get a very similar feeling expressed by a member of our U. S. Department of State a few years ago. The controversy of the freedom of India was raging. Our government was being forced into making our own position clear. In order to obtain facts, the State Department sent one of its men to India with the instructions to find out what the Indian problem was, and what was its solution. He viewed with dismay the hundreds of cults and sects, the cast system, the intricate religious difficulties, the resistance to good hygiene, and sanitation, the famine and pestilence, the total lack of unity. His lengthy report was summarized in one sentence—the problem in India is unsolvable.

That is the way I sometimes feel about transfusion reactions. Just about the time we think we have them licked — trouble breaks loose again. A new crop of internes, new help in fixing up the transfusion sets, new ideas generated out of whole cloth as to how blood should be drawn, storing blood on a table in a hot room for hours before refrigeration (somebody thought somebody else, usually Mr. Nobody, was going to put the blood in the refrigerator). And so it goes, but I am still optimistic because I am convinced that all other things being equal, that two things are needed to reduce to a minimum these untoward reactions, although in small private hospitals they are not so easily carried out. One is the use of nothing but commercially prepared equipment and solutions for all phases of the transfusion, and the second is the use of one team or person who is wholly responsible for the taking, storing and giving of the blood. The first will soon be a reality—complete sets are in the process of being manufactured. The second is not so easy because of the horribly late hours that patients arrive in private hospitals expecting to be worked up and be ready for operation the next morning with bottles of blood hanging from their necks. The physician and hospital share equally the responsibility on this score.

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*Read before the Omaha-Douglas County Medical Society, May 13, 1947.

**From the Department of Pathology, Nebraska Methodist Hospital, Omaha.

Now to the problem at hand—the first important step to be taken in order to reduce transfusion reactions to a minimum is the proper selection of the donor. In general, donors may be selected from adults who are in good health and who give a negative history for asthma or other allergic states, who have not had jaundice within the previous six months, who have neither had malaria nor been in a malarial region for at least two years, and who do not have primary syphilis and are serologically negative. A normal temperature and a hemoglobin above 80% is also necessary. A systolic blood pressure of less than 200 mm, a diastolic of less than 120 mm, are desirable in order to avoid reaction in the donor for which the procedure may be blamed.

A systolic of less than 100 mm is also a contra-indication for the same reason.

It is highly desirable that a donor be fasting for at least four hours prior to the time that blood is drawn.

The selection of the proper donor so far as blood group is concerned, is naturally of greatest importance. In general, most institutions use the same blood group for the donor as that of the recipient. The use of type "O" as a universal donor is attendant with a certain risk despite the absence of an agglutinogen in the red blood cells. In fact the term "dangerous" universal donor has been applied to type "O" in some cases. Although the type "O" blood contains no agglutinable substance in the red blood cells, the serum of such a person contains both Anti-A and Anti-B antibodies. These are usually present in such a low titre that the dilution of the donors 500.0 cc of blood by the recipients entire blood volume is great enough to prevent any serious reaction. The use of "O" blood as a universal donor in some zones of combat was found to be not only expedient but necessary. I have been told that although fatalities were not recorded, such as many which have appeared in the literature, many reactions did occur. The use of the same blood type eliminates these reactions.* Although subgroups of "A" have been responsible for some transfusion reactions, the majority of so-called intra-group reactions occur because of an incompatible Rh factor. A few years ago the occurrence of a marked hemolytic reaction following the use of type "A" blood for a type "A" recipient was not explainable, and were classified under the general heading of intra-group reactions. Most of these are explained on the basis of an incompatible Rh factor.

We must be careful then to determine the Rh on all recipients. If they are Rh positive, any donor may be used of the same general type such as "A", "B", "O", and so forth. If the recipient is Rh negative we must be careful to select an Rh negative donor of the same general type such as "A", "B", etc. As an added precaution, we not only cross match the probable donor's blood, but we also set up a direct match with the recipient's serum and donor's cells in a 37 degree Centigrade incubator. This is necessary in order to determine Rh incompatibilities, whereas the room temperature is all that is required for the general blood groups.

Final selection of the donor must be made by written report in order to avoid misunderstanding over the telephone. We use stickers upon which all the pertinent data can be written. These are used as a reference for the choice of donors as well as a means of identification of the blood, by pasting the sticker upon the bottle after the blood is drawn.

The types of reactions which may follow the administration of blood are many, and are difficult to classify. No classification is satisfactory because of the fact that many reactions and complications are not explained. The following classification is workable.

1. Incompatibility or hemolytic reactions.
2. Simple febrile or pyrogenic reactions.
3. Allergic reactions.
4. Psychogenic reactions.
5. Transmission of disease.
6. Cardiovascular accidents.

I. Incompatibility or hemolytic reactions.

These reactions, although not common, are extremely serious. They carry with them a mortality of about 50%. Less than 0.1 of 1% who receive transfusions, die as a result of an incompatible reaction. According to Wiener, these hemolytic reactions may be divided into two groups, (1) those due to specific incompatibility of the blood of donor and recipient, and (2) the presence of nonspecific agents as when blood that has been stored too long is used for a transfusion.

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*The recent discovery by Witeboky of a substance which will absorb anti-A and anti-B antibodies may prove widely useful. In small series, "O" blood with the antibodies removed, have proved very successful.

When a specific incompatibility is the cause, it may be due to some error in the proper identification of the donor or the donor's blood after it is drawn.

Errors in the blood grouping itself are very rare now because standard high titre typing serum is commercially available, and hence, there are very few weak or border line agglutinations obtained in the typing set up. A few years ago laboratories depended upon bleeding selected "A" and "B" donors for typing serum, but paid very little attention to the agglutinating titre of the serum.

Intra-group transfusion reactions, where incompatible blood is the cause, are usually due to an incompatible Rh factor. Many occurred in women who had been pregnant. These, in the light of present knowledge, were due to use of Rh positive blood in an Rh negative patient who had developed a dangerous Anti Rh titre of the serum as a result of isoimmunization from an Rh+ fetus.

Most of these are now being avoided by careful Rh factor determinations. One case comes to mind, however, which illustrates the need for caution. This patient had a cholycystectomy. She was given 500.0 cc of a group specific blood immediately after the operation. She had a severe delayed hemolytic reaction 24 hours later. We could not understand it, since we had determined that the patient was an Rh positive. Rh positive blood was given. A recheck revealed that the patient was Rh negative—that she had only one five and one-half year old child with no history of abortion or stillbirth. The patient lived. She served to emphasize the need of a direct match at incubator temperature in order to act as a double check on the original Rh typing.

Repeated transfusions may also be responsible for the development of incompatibility. If Rh positive blood is transfused into an Rh negative recipient, an Anti Rh titre sufficiently high may occur, which will result in a hemolytic reaction. This is unusual, however, because the Rh is a poor antigen, and therefore will not stimulate antibody formation very frequently.

We had an experience recently where a patient had received several transfusions, but the last few were associated with severe reactions. A mistake had been made in the original Rh typing. The patient was thought to be Rh positive. Instead, he was Rh negative. He had received repeated transfusions with Rh positive donors and developed a dangerous Anti Rh titre.

Hemolytic reactions may also occur when compatible blood is given, but which has either undergone some hemolysis or where the red cells have become more fragile than normal due to prolonged storage. It is advised that dextrose be added to the stored blood. If a concentration of 3% is maintained, there is less than one-half the hemolysis in thirty days than there is in citrated blood in ten days. Excessive exposure to heat and cold or excessive agitation resulting from the transportation of partially filled bottles will hemolyze blood, and even the violent agitation which may occur when blood is drawn with the aid of a vacuum pump or into a vacuum bottle, if allowed to rush in too rapidly, will cause rupture of the red cells and hemolysis.

The sypmtoms and signs of a hemolytic reaction should be familiar to every person who administers blood. If a hemolytic reaction is detected before 500.00 cc is given, the prognosis is not too bad. In fact, practically all persons who have received less than 350.0 cc of incompatible blood have recovered. Few have recovered who have received more than 500.0 cc.

Reactions often occur before 50.0 cc of blood have been given. Therefore, this is the critical period of observation. When it is known that patients react to blood such as leukemias and other blood dyscrasias, we often advise the administration of 50.00 cc of blood, and then wait for one-half hour before the remainder is given, providing no reaction has occurred.

The patient who is suffering from a typical hemolytic reaction complains of fullness in the head which he may describe as a "bursting feeling", generalized tingling sensation, anxiety, precordial oppression, or constriction of the chest and pain in the back of the neck, in the chest and in the lumbar region. The latter is said to be "pathognomonic of the transfusion of incompatible blood." Collapse may soon occur and the patient exhibit the signs of shock—rapid pulse, cold clammy skin, nausea and vomiting, fall in blood pressure—in fact, the reaction is often described as hemolytic shock. Death may occur at this point. If he survives, within an hour the patient usually has a severe chill and a rapid rise in temperature. The patient may be jaundiced the next day. He may be apparently improved, but if the reaction has been severe he is oliguric or anuric. If this continues, death will occur in uremia of about

50% of the cases. If the patient recovers the diuresis often begin abruptly—and freqently irrespective of treatment.

In atypical cases, there may be no immediate symptoms or signs, the first hint being a chill. In still others, this too may not be present, and the patient develop anuria as the first sign. In this type, the transfusion is frequently overlooked as a causative factor in the illness.

From a laboratory standpoint, all of the procedures of typing and cross matching should be rechecked at once. Blood should be drawn within an hour after the onset of symptoms and a search made for hemoglobinemia. The first urine specimen passed by the patient should be examined for hemoglobin. If hemoglobinemia or hemoglobinuria is present, a diagnosis of a hemolytic reaction can be made.

The kidneys of such a patient are swollen and speckled with reddish brown dots and streaks. Microscopically the tubules contain brownish acid hematin pigment, and many of the cells show degenerative changes and the interstitial tissues are edematous. The glomeruli appear normal. Liver necrosis has also been described.

The cause of the renal failure has been the subject of much study. The problem is by no means solved. The obvious explanation appears to be that of tubular obstruction due to precipitated hemoglobin. In animals, notably dogs, it has been observed that when the Rh of the urine is acid, hemoglobin is precipitated in the tubules, and when the urine Rh is alkaline, the hemoglobin remains in solution and is passed out of the kidneys without producing an obstruction. However, the problem does not seem to be that simple. The presence of liver necrosis, degenerative changes in the tubular epithelium, interstitial edema of the kidneys and normal glomeruli cannot be explained on tubular obstruction alone. In fact, one investigator reported three fatal transfusion reactions with oliguria. The urine was kept alkaline in two of these; and despite the fact that the kidneys showed no tubular obstruction, the patients were anuric and died in uremia. It has been suggested that hemoglobin per se is toxic, and causes interstitial edema and tubular degeneration, and in addition there may also be a spasm of the renal artery which would reduce the filtration pressure. This would account in part for the oliguria, and would also explain the intense lumbar pain which these patients have.

II. The second group of reactions are classified as simple febrile or pyrogenic reactions. From the standpoint of mortality, they are negligible. They have a very high nuisance value, however. As far as I am concerned, they are responsible for more loss of sleep, nasty, sharp words being directed at or very close to the pathologist by his medical colleagues, and are directly resonsible for more people—internes, residents, nurses, central supply workers, and biologic house representatives—being kept in a constant uproar than a whole Paul Bunyan fist full of instrument throwing surgeons.

The basic importance of these reactions rests largely on the fact that if all of the blood has not been given to a patient, and a reaction occurs, the transfusion must be discontinued for fear the reaction is hemolytic. The patient is thus deprived of much needed blood. Since many patients are now being given blood while under anesthesia in the operating room, these reactions are often not observed. In many cases the symptoms of these reactions begin within fifteen minutes or an hour after the completion of the transfusion. The first symptom is usually a chill which may last for a few minutes to an hour. This is followed by a fever which may rise as high as 105 to 106 degrees Fahrenheit. Nausea and vomiting may accompany the episode. As a rule, the temperature returns to normal in a few hours.

The first thing that should be determined is whether the reaction is hemolytic. If not, the second thing that should be determined is whether the reaction is part of the patient's disease. It is often found that the reaction is more readily explained on the basis of the patient's septic state for which the transfusion was given. Blood dyscrasias and leukemias are prone to have reactions.

The remainder of the reactions fall into a larger receptacle known as pyrogenic reactions. It has been shown that certain river bacteria can live in distilled water which can produce certain soluble thermostable substances capable of producing fever reactions. The term has been extended to include any non-specific agent which produces an untoward reaction. These are numerous, and frequently the cause is never determined. The reactions mysteriously appear and just as mysteriously disappear. But since there are so many human factors involved in the giving of blood, it is little wonder that they seem to be with us constantly.

After a transfusion set is used, it should be thoroughly rinsed out with cold tap water immediately. This prevents blood from drying in the tubing which may cause a pyrogenic reaction. Transparent tubing is a must here because of the ease with which dried blood can be spotted through the wall. Dried blood can be removed by thoroughly soaking in an alkaline solvent, several good ones being now commercially available. The difficulty is that the tubing is thrown into the solution, and no attempt is made to see that the solution actually goes through the lumen. New help is usually responsible here. The tubing should be thoroughly rinsed with distilled water and the last rinsing with sterile distilled water. Here is another chance for faulty technique. The still may not have been cleaned for months. It should be descaled periodically, the time depending on the need as determined by inspection of the still. Containers in which the distilled water is collected should be thoroughly washed out and each time they are used, rinsed several times before collection is made.

New tubing should always be thoroughly washed in alkaline solvents in order to remove the powder which is pyrogenic.

Another source of error is the use of a suction machine in the drawing of the blood. Blood can be satisfactorily drawn by gravity method alone with the aid of a blood pressure cuff on the arm inflated to a point 10 or 15 mm below the systolic pressure, the venous engorgement being also maintained by slowly opening and closing the hand. If vacuum bottles are used, the initial suction should be reduced. The use of too much vacuum may cause difficulty by hemolizing the cells through mechanical trauma. If leaks are present in the apparatus, air may be drawn in, and the blood becomes foamy. This does not mix with the citrate and results in the firmation of fine fibrinous threads. These may cause a reaction.

Another source of difficulty was discovered when one enterprising interne decided that he would only draw in one-half of the 50.0 cc of the 2½% citrate used for 500 cc of blood, and when the blood was all drawn, the remainder was sucked in as a tubing rinse. Naturally there was an insufficient quantity of citrate in the bottle to prevent clots. We now recommend 4% citrate instead of 2.5%. Clotting may also occur when the entire inside of the receiving flask is not wet with the anti-coagulant, when the flask is not properly agitated while the blood is running in, or when difficulty is encountered in maintaining blood flow during the drawing process.

An adequate filter removes clots. Some of the older type plastic filters are still being used, and they are not as efficient as the newer stainless steel mesh wire filters.

The care of the blood is important. If it is not to be used immediately, it should be placed in an efficient refrigerator used only for this purpose. Every so often a bottle of blood is found out on a table in some nice hot place where hemolysis is sure to occur, and naturally reaction follows its administration. **Once blood is chilled, it should never be re-warmed before being used for the transfusion. It should be transfused while cold.** This markedly reduces the number of pyrogenic reactions.

III. Allergic reactions.

These usually consist of urticaria during or immediately after a transfusion. They occur in about 2% of all transfusions. The more severe reactions may resemble an asthmatic attack or anaphylactic shock. The severe forms are rare. The etiology of allergic reaction is not known, but it is thought that the specific protein to which the patient is sensitive is transferred to the recipient and this is one reason why the fasting patient is preferred as a donor.

The temporary transfer of sensitivity also may occur. In one case a recipient who had never been sensitive to horse dander became sensitive immediately after a transfusion from an asthmatic patient sensitive to horse dander. In another instance a sensitivity to strawberries was transferred to the recipient. The sensitivity lasted three months.

IV. Psychogenic reactions.

Occasionally patients become very wrought up about their transfusion, mostly because they believe that the need for a transfusion is an ominous prognostic sign. They may get faint, restless, anxious, or even have deep respirations as if they were short of breath. These reactions are the source of confusion and worry. Careful mental preparation of the patient usually helps to prevent them.

V. Transmission of Disease.

Syphilis, malaria, and infectious jaundice are the most common diseases transmitted by transfusions.

Syphilis must be in the primary or secondary stage to be transmitted. It is unlikely that it can be transmitted in the tertiary stage. DeBakey and Kilduffe have collected about 100 cases from the literature, but as they point out, many are not reported because such reports are "not conducive to publication."

An appreciable number of the reported cases were the result of using a relative or friend as a donor, and the usual precautions were not taken in order to ascertain the absence of syphilis. The incubation period varies from one to four months—the average being from eight to ten weeks. The Treponema pallidum probably does not survive longer than 96 hours in stored blood.

Malaria may also be transmitted by transfusion. At the Peking Union Medical College, the incidence was as high as 14%. Here it offered no problem until World War II. We have had one case where the disease was transmitted by a returned veteran. We routinely ask all donors whether they have been in a malarial district, and if they have, we do not use them unless they have been out of such an area for at least two years, and have had no chills in the interim. The incubation period is about two weeks. The parasites probably do not survive in stored blood for more than five to eight days.

Homologous serum jaundice, the type which was so common during the war, can also be transmitted. A recent history of jaundice in the donor should exclude him as a donor. Storage will not effect the virus.

VI. Cardiovascular accidents.

Acute heart failure and pulmonary edema may occur as the result of overloading the circulation. Patients with a known weak myocardium, either as a result of intrinsic heart disease or a weak muscle due to anemia, should be given blood with caution. The slow drip method so generally employed now, is ideal for this purpose.

Air embolism has been observed, but the amount required before symptoms appear is quite large. More than 30.0 cc of air have been injected experimentally without producing any symptoms.

Retinal hemorrhages have been described, but there is considerable doubt as to the etiologic relationship of the transfusions.

Other complications such as embolism from a bacterial endocarditis and cerebral hemorrhage have also been described as well as other unusual complications.

SUMMARY:

1. Transfusion reactions may be classified into

a. Hemolytic reactions.
b. Simple febrile and pyrogenic reactions.
c. Allergic reactions.
d. Psychogenic reactions.
e. Transmission of disease.
f. Cardiovascular accidents.

2. Hemolytic reactions due to blood incompatibility are usually due to personal errors in handling blood or Rh incompatibility.

3. The mortality of hemolytic reactions is about 50%. Recovery occurs as a rule when less than 350.0 cc of blood is given.

4. Simple febrile or pyrogenic reactions are not serious as a rule. They occur as the result of many different faults in the technique of preparing transfusion sets, drawing and caring for the blood.

5. Psychogenic reactions may be confused with true reactions.

6. Syphilis, malaria and infectious jaundice are the most common diseases which may be transmitted by transfusion.

7. Acute heart failure may occur as the result of over-loading the circulation, especially in intrinsic heart disease or severe anemias.

BRITISH CUT CHILD DIPHTHERIA DEATHS MORE THAN 80 PER CENT

For every six British children who died from diphtheria before the war only one died in 1946, according to the London correspondent of the Journal of the American Medical Association, writing in the October 11 issue. Credit for this is given to the national campaign launched by the Ministry of Health to immunize children against diphtheria before their first birthday. Prewar figures for the disease averaged 58,000 cases and 2,800 deaths annually; by 1946 the figures were only 18,284 and 472.

"Last year half a million children under five years of age were immunized," says the writer. "The aim this year is to immunize 590,000 babies before their first birthday. It is believed that such a high level of immunization has been achieved among children that diphtheria could be eliminated as an epidemic disease if in each year three of every four babies were protected before reaching their first birthday. The total number of children immunized since the campaign began is more than 6,600,000."

A Physician's Role in Behavior Problems*

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Behavior problems seldom arise abruptly in a patient's life. The tension which develops as the result of the child's conflict with his environment gradually increases until it forces a maladjustment. In reviewing one hundred behavior problems in children from two to sixteen years of age in the Out-patient Clinic of the Norfolk State Hospital and the Norfolk Public School Clinic, we have come to the conclusion that repeated minor traumas are more important in behavior problems than one major trauma which might leave its everlasting scar upon the patient's psyche. It is our impression that a common-sense approach toward these problems at the time they arise would play a great part in diminishing their intensity. We approach this problem from a more or less simplified way of looking at the child. For our purposes we use the following:

We have assumed that there is a will to live—a spark of life in all human nature, that it is an instinct and does not have to be cultivated on the part of the parents, the teacher or the Doctor. In our cases, ninety-five percent of the difficulties have arisen out of attempts to too severely modify these instinctive drives of the children by the parents. This instinct to live, or self-preservation, can be broken down into four major drives, each accompanied by a definite feeling. First—to seek freedom of action; blocking this drive produces the feeling of anger or fear. Second—to seek food; blocking this drive produces hunger. Third—to seek bodily pleasure; blocking this drive produces pain. Fourth—to seek companionship; blocking this produces loneliness or homesickness. The child comes into the world seeking an outlet for these instinctive drives, which often brings him into conflict with his environment. Attempts to get the child to modify these instinctual needs arouses emotions which become greater as he meets with resistance. The child's inability to find a suitable outlet for these needs results in what we call "behavior problems." The problem of raising children, then, centers around helping the child find an outlet for these four major drives within the framework of the society within which he lives. Various types of discipline have been used designed to produce a well adjusted child. Too many people still believe that discipline means punishment. Actually, punishment is only one means of attaining discipline. Punishment in itself is a not too successful means of training the child for it always brings into play the child's drive to seek freedom of action, which is accompanied by feeling of anger or fear, therefore it blocks his initiative and slows up the very process which we hope to foster.

Behavior, then, depends on these four major drives to expression. It is expressed in the three ways of feeling, thinking, and acting. It is feeling which serves as the energy for these four major drives, which keeps the individual making an adjustment to his environment and drives him on to live and grow.

Science playing an ever increasing part in our philosophy of live has resulted, during the past twenty years, in some doubt as to the old type of disciplines. It was easily and quickly seen that a too rigid discipline was producing some bad results and there was pressure brought to bear to soften this discipline. Some twenty-five years of what was apparently a soft discipline in training children has produced no better results than the more strict disciplines used previously. The one erred on the part of too harsh discipline, and the other on the part of allowing the child to grow up believing that he could dominate his environment. The answer, then, for well adjusted children, and in turn, adults, is to find an outlet within the framework of society. Today, although our disciplines are no longer as harsh as they were many years ago, they are no less rigid.

It is interesting to talk to a modern mother today. She reads books on how to raise her baby, talks to her doctor on what to do for her child, what to feed him, etc. She does this because she wants her baby to grow up healthy and happy. Our mothers today often act as though their children would not know how to eat unless they were taught, and that they would not know how to control their bowels and bladder unless they were taught. They forget that eating, toilet-training, etc., is the result of instinctive drives and children do not have to be taught these things. What they need, rather, is an outlet for these drives within society.

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*Read before the Nebraska State Medical Association, Omaha, Nebraska, April 30, 1947.

The most common behavior problems which we have met are as follows: eating, weaning, thumb-sucking, toilet-training, sibling jealousies, illnesses, and anxieties incidental to normal development.

Mothers should be reminded that the first conflict which we meet in the child arises over his feeding problem. The over-zealousness of the mother to have a healthy, happy baby often results in a too rigid concept of how much formula the baby should take and at what hours he should take it. She has read the books and talked to her doctor about regularity in feeding and at exactly what time food should be offered. The mother sometimes assumes that if the baby was not taught to eat he would starve. This is, of course, not true. Babies grew up long before our modern methods of adding foods to their diet were practiced. We should remember that there are no two babies alike, and no two babies should take their meals at exactly the same time nor in exactly the same amounts. Babies are individuals—they are not Ford cars. Attempts to rear babies on assembly line methods forces them into a rigid pattern which results in increasing conflicts. The conflict arouses anger or fear and these feelings are in direct opposition to the feeling of hunger, which in itself will destroy appetite and obstruct us in our first feeding problem. The same reaction is produced when new foods are offered to the child. New foods should always be offered in a quiet, happy environment. If the child refuses he should be given a little latitude and the food offered at a later date. Attempts to force, through our own concepts of when the child should add new foods to the diet, can form a habit pattern which results in the child's chronic loss of appetite. We have often heard mothers state, and probably quite truthfully, that they have never known their child to have an appetite. This is the result of an over-zealous mother who has robbed the child of his appetite because of trying to fit him into a rigid schedule. This problem often arises when the mother first takes her baby home, with a new formula, which may be a little too large for him. The baby falls asleep satisfied and the mother, believing he should take all of his formula, becomes alarmed, wakens him and pushes the nipple in his mouth. If he goes to sleep again she snaps the bottom of his feet and jiggles the nipple in his mouth in an attempt to get him to take more formula. Consequently, the child often sets up an association of dislike for food when the mother is too vigorous in her attempts to get him to eat. Later in the child's life we find that the mother insists on the child eating new foods without regard to the child's individual likes and dislikes. We hear over and over again that our babies should be taught to like food.

The same problem arises when the child begins to hold the spoon because of the mother's wish that the child act like "a little lady—a little gentleman" at the table. They rightfully wish their children to have good table manners, and to have good healthy bodies, but to force this on the child too quickly may destroy his appetite. Table manners, like a desire for food, come easily to the child if they are not forced too quickly. Adults use table manners because they are more acceptable in their society when they follow the pattern of others. To believe that a child will not follow these patterns when he is ready for them, unless strong pressure is brought to bear upon him, implies that the child must be stupid. It is our belief that the child learns this because of his innate instinctual behavior. So actually we do not need to spend much time in teaching the child table manners and what to eat, but to bring only very mild pressure to bear upon him.

When we find problems which arise out of the feeding habit, the first action is to take off all restrictions and attempt to allow the more normal instinctive drive of the child to bring him back to a healthy appetite, then start over again with our training. Commonsense, then, teaches us that until the twentieth century the entire human race always determined its own feeding time and what it would eat without too disastrous results. In actual practice, if you watch children fed at their own demands, you will find them soon putting themselves on a regular schedule. This is because the ingestion of food takes care of the human needs for a certain time and the baby has no hunger until the body again needs food. It has been noted for a long time that babies automatically give up their feeding period in the middle of the night. However, if we have gotten off to a bad start and attempt to go back to feeding at the infant's demand, we should recognize that there will be a transition period and it will take the baby a little while to recover his normal appetite. There is no particular reason for letting him cry when he awakes just because his next feeding period is not due until a half hour later. You need not be afraid of feeding him at that time. He will either compensate for this by sleeping longer at the next period, or the schedule may be accelerated all day and the time made up during the night. So when any attempt at changing the baby's feeding schedule is undertaken, it should be done gradually, allowing the child to refuse it; and, do not bring so much pressure to bear that there is an actual battle declared. If the child takes a taste of the new food, that is sufficient. If he shows a liking for it, give him more of it, and if he rebels, let it go until later. Routine observation of babies show that they accept fruit or mashed bananas much more readily than cereals, which makes a very suitable transition form of food so that he can get used to solid foods. Mothers now become concerned about the lack of a well balanced meal. Actually it is not necessary to have a well balanced meal at every meal. Enough work has now been done with babies choosing their own foods to show that over a period of months the child selects a fairly well balanced meal if left to his own desires; he will like one food for a while and then have no desire for it for some time. Allow him to have his own way —allow him to be an individual. If we force the issue at this point we will very frequently arouse so much anxiousness associated with the food that he will not like it at all. If we allow him to show his own individuality, he will again go back to the particular food he is now refusing.

The second conflict arises over weaning and thumb-sucking. Normal children vary as much as six to ten months in the time when they will give up the bottle or the breast and accept the spoon and the cup. To insist on the child leaving the bottle or the breast and taking the spoon and the cup at a definite time again may put him on a too rigid schedule. The answer is to offer it and if he turns it down, wait until a later date. Always, when offering a new food or a new means of eating, the child should be hungry and the atmosphere pleasant. There is a certain amount of bodily pleasure available to the child from the activity of his mouth—namely, sucking. Thumb-sucking is to be expected when the child does not have enough bodily pleasure or when he is hungry. We should expect all children to suck their thumbs at times. This should cause no worry unless it is a continuous habit. The answer to thumb-sucking lies in finding the cause and giving him sufficient outlet for his needs so that he does not need to suck his thumb excessively. The old concept that sucking his thumb will cause deformity of the teeth is no longer a tenable theory. A little consultation with an orthodontist about the time necessary for a small child to wear braces in order to correct his teeth shows us how much continuous pressure is needed to change the basic hereditary pattern of tooth growth. I do not believe any amount of thumb-sucking will cause sufficient pressure to change this. Thumb-sucking indicates that the child does not have enough food, that there is an anxiety present during the time he is eating, that he does not get enough love and affection, or he is just exploring his world. The answer is to find out which of these factors are present and correct it at the base.

Weaning the child brings about a certain amount of anxiety in connection with his food, so we would expect thumb-sucking to take place at this time. Since the child is having to learn a new way of reacting, to become angry, to frighten him, or to restrain him too much during this time concerning his thumb-sucking, arouses anger or fear, or both, and increases the difficulty of the weaning period. To wean means 'to take away gradually' or 'to live without' This is what we should do with our children. A too rigid discipline here makes the child afraid of new foods because of the pressure brought to bear and displeasure from the mother may arouse anxiety; anger on the part of the mother may arouse anxiety at the very presentation of new foods. The mother's anger and frustration over his inability to accept new foods creates a frustration in the child, blocks his freedom of action, and, in turn, arouses fear and anger in the child which destroy his appetite. It is easy to see how this type of reaction, followed over a period of years, results in finicky eaters—people who actually do not like foods. When we see them as adults we commonly hear them say, "I eat to live; there is no actual pleasure in eating for me."

Toilet-training becomes our next big step with the child. Again we find the modern mother taking an over-zealous delight in being able to say her child is toilet-trained and never soils herself at eight months. She acts as though it were due to her intelligence that the child's early toilet-training was brought about. It might be well to ask these over-zealous mothers who taught people to keep from soiling their clothing a thousand years ago, and then we might also ask these mothers why they no longer soil their own clothing. Actually it is a part of the child's instinct of bodily pleasure which is aroused when he soils his clothing because he is uncomfortable, or his need for companionship is blocked when he soils his clothing and he is no longer a suitable playmate because of the disagreeable odor about him. These are the things which teach the child to take care of his bowels and his bladder; the reason that adults remain toilet-trained. There is an exaggeration in the minds of many of our mothers that bowel regularity is necessary for the child's health and welfare. We have only to listen to the radio and look at the advertisements for bowel elimination to realize how much of an obsession bowel movements are to the people of America today. Bowel movement is an instinctive reaction and does not particularly need training. In the early months of infancy, movement of the bowels is a fairly simple reflex. As the child gets older and acquires a certain amount of voluntary control over the lower half of the body, he acquires more voluntary control over the bowel movement also. What he actually does is inhibit the impulses from the rectum until he can evacuate the bowel. When he goes into the second year he acquires further control and also interest in the movement as well. This is something the child has produced himself and consequently he takes an unusual interest in it at first. This often disturbs our mothers because they usually have carried over the concept that there is something nasty and not nice about bowel movements. Observation over a period of time has suggested that the age at which the child learns to inhibit bowel movements until he can get to the toilet is not too important. It is important not to train too early or to bring too much pressure to bear as it arouses conflicts, the same as we have in the eating problem. This is usually what happens and what is happening in America as a whole, which has resutled in over-awareness of the bowels. If the mother objects to his interest in his bowel movement and tries to tell him when he shall and shall not move his bowels, then the most powerful of our major drives "freedom of action" is taken away from the child. Fear and anger are aroused and the child rebels. This results in the inhibiting of the impulses from the bowel at the time the mother tries to demand them, and action on the part of the child is proof to the mother that he is in control of his own actions. The bowels are then moved when the mother does not wish it. This results sometimes in inhibiting the movement of the bowel over a long period of time, consequently, when the bowels do not move there is pain. The pain tends to cause the child to further inhibit the movements and when the mother now demands that he move his bowels it is associated with pain, and the whole mechanism of normal bowel movement is blocked.

At this stage of the game, when the child is either apparently malicious in not moving his bowels until after he is taken off the toilet, or when he actually has not the urge, the mother resorts to suppositories or enemas. This only further complicates the picture and intensifies the resistance and anxiety. In the very early stages when the mother is attempting to use a suppository in the first day or two of toilet-training, it may not be harmful; but after the child has begun to resist, they are definitely contraindicated. Consequently, much hostility and stubbornness is aroused during this early period of bowel training which arises between eight and twenty-four months of age.

The small child who constantly defies his mother becomes uneasy because his security rests in his mother and consequently he is thrown into mild anxiousness which may result in childhood neurotic reactions. It gives rise to the phobias of the child that he is unclean and that he is bad. This lays the foundation for later important neuroses, not only as far as phobias are concerned, but also as far as the whole sexual sphere is concerned, because later in life the child's first concepts of sex will be associated with his excretory organs. Consequently, in this field we should do as we have learned in the previous field—do not bring too much pressure to bear. Allow the child's individuality to assert itself and the instinctual behavior will take care of much of the bowel training. It is normal for many individuals to move their bowels irregularly. Do not try to change this as long as the movements are comfortably soft. Each child will gradually acquire control of his bowel movements. Do not be in too great a hurry to teach the child to control his bowels. When you first put him on the chair or toilet do it casually and briefly. Do not make a moral issue of this. When the child develops a proprietary interest in his bowel movement, do not show disgust or anger. Relax and allow him to cooperate, rather than arouse his rebellion and make him resist.

Training of the urinary bladder soon follows that of the bowels. The most that any parent can accomplish is persuading the child to void in the potty a little earlier than he would have gotten the idea for himself. During the first year the bladder retains very little urine because it is still sensitive, but there is a great variation in babies. It is usually after fourteen to sixteen months that the child begins to hold his urine longer than an hour or so. By this time he has acquired enough consciousness to comprehend the reason for placing him on the toilet. The child is still not old enough to be aware of the significance of these feelings in his bladder until often it is too late to get to the toilet. He frequently forgets to warn his mother until it is too late. Here again it is very important that our mothers do not become too upset, but encourage the child. Too harsh discipline here does the same as in bowel training.

Control of the child's bladder at night is usually not acquired until after the child has taken over the complete responsibility to keep himself dry during the day. He does this because of the uncomfortable feeling. If too much pressure is brought to bear by the mother he may do it in order to escape her wrath. This tends to make the child overly anxious for fear that he might soil himself, which, in turn, takes away part of the voluntary control, and means that he is much more likely to wait too long to warn his mother. The child may use it as a means of establishing his own identity and retaining his own freedom of action. It is not the parents' training efforts which keep the child dry at night because we now have enough experience to know that many children without any training at all stay dry during the night. Staying dry is based on the maturing of the bladder function. The important thing from the standpoint of training is how it is done. Do not arouse the child's resistance, for it may cause the child who has once been bowel and bladder trained to revert to the earlier period when he had no control. Reverting to enuresis after control has once been established is an indication that there is something new in the child's life which is causing him some anxiousness, and it should be interpreted as such. Rather than primarily think of this as naughtiness on the part of the child, we should look for the cause. Reassure the child, rather than bring pressure to bear upon him. It is well known that uneasiness and tension readily communicate themselves to the bladder, which may make it so irritable that it is impossible to retain the urine over a long period of time. Consequently, any fear, any move from one neighborhood to another, any new situation in the home, such as a new baby, a boarder coming, or relatives coming to stay over a long period of time, or a clash of long-standing between the child and the mother, may cause him to revert to soiling himself again. When the question comes up, first we look for what tensions are operating. In some cases the child needs a little more time to acquire this. but more commonly we find the mother has been pushing the child too much to develop control. The answer, here again, is to take off the control; leave the child a certain amount of discretion; allow his natural instinctive reactions to be brought to bear on his problem at that particular time.

The physician has often attempted to do a complete urological examination. In checking a large number of these cases, we find there are very seldom any urological symptoms present. The rule we use is not to resort to extensive examinations unless other symptoms indicate urological pathology. Extensive examinations only serve to alarm the child which increases his difficulty and anxiousness concerning the whole problem of elimination. In summarizing urine-training, then, we find the child largely does this himself. His bladder function, through the normal process, tends to retain urine at longer periods; he develops voluntary control concerning this because he wishes to remain dry because he is more comfortable. When he gets older he does so because he wishes to be accepted by his playmates. Do not antagonize him by trying to force him to move his bowels or his bladder at your command. Remember that it takes him a period of months to learn this. An actual feeling of security and emotional relaxation is necessary if he is to succeed. Otherwise the child will carry over a feeling of anxiousness concerning the whole process of elimination, which in later life will be the foundation for many types of neuroses and may serve as a hysterical outlet if the uneasiness becomes too great; or, it may serve as the beginning of a neuroses concerning guilt feelings in sexual life. Many of our cases of frigidity in adult women have their foundation in the first two years of training about their bowel and bladder.

The next great problem which the baby is brought to face, usually somewhere between 1½-3 years of age, is jealousy. If a new child has not come into the family by this time, we still have the problem of jealousy because the baby is now old enough to realize that his security can be threatened by the demands of others on the time of his mother or father. He now is beginning to realize that he, himself, is no longer the "King of his Universe." The feeling that we are not completely in control of our universe leads us to a mild feeling of uneasiness, and attempts are made to gain domination. A new baby in the family, then, arouses definite emotions in the child with uneasiness and insecurity. This is true whether the child has been taught to expect a new baby and that the baby is his and he can love and hold the baby, or whether it has been kept from him as a secret. Children react in various ways to the addition of a new member to the family, showing the most violent reactions when the event is kept from them as a secret. It is our belief that all children should be warned of a new individual coming into the family, and an attempt made to allow the child to see that this is a broadening of his own experiences and that the baby will now belong to him, as well as the rest of the family. In this way we do not get as great a blow to the ego of the child. Jealousy is a definite fact of life. There is no way to prevent it. It is the emotion which we have when someone or something is very important to us and there is a possibility of someone else removing it from our immediate grasp. The question is not to escape without jealousy, but to find out how to accept this jealousy and still find an outlet for our own needs in our universe. At this particular time all questions from the child should be answered. We need not go into a long story, but an immediate answer to his questions should be forthcoming. Otherwise the child begins to feel insecure, the same way adults feel insecure when there is something which is important to them to which they cannot find the answer. This only increases the frustration and, in turn, the jealousy, because it makes the child feel additionally insecure.

Jealousy is a symptom of insecurity whether in a child or an adult. If there is not a new baby coming into the family at this time, the child develops this jealousy in relationship to attention and time demanded of the mother by the father, or by her other outside interests; or, he develops this feeling concerning the father's time by the demands made upon it by the mother and shutting him out. Any attempts to shut the baby out of the family increases his feelings of anxiousness and his need to know, and consequently an increased drive on his part to find out. This is where the baby's normal curiosity comes from. It is actually a very mild form of fear, but so mild that we do not recognize it as fear. It is an instinctive reaction; it is part of the source of the energy drive which keeps the child finding out things, even up into his adult life. Anxiety caused at this period of the child's life forces him back into his maladjustments in the earlier phases of his life, and may cause him to revert to an earlier childhood reaction such as thumb-sucking, wetting the bed, refusing food, etc.

The answer to jealousy is not to give the child entire control of his world, but to show him that affection can be divided without taking any from the one who originally had it. When one of the parents returns home the child should not be shut out, but should be included as a part of the whole family group. It is unwise to ask a child, "How has the new baby been today?" Stop and play with the child before going in to see the new baby. If you wish to ask the child about the baby, ask the question, "How has your baby brother been today?" in order that the child may see that he belongs and that the baby is partly his.

The more severe forms of jealousy take on the following patterns: Everyone knows when a child grabs a heavy object and strikes the baby over the head with it, he is jealous, and wishes to harm the baby because his own security is being threatened. Many mothers think it is clumsiness when a child hugs the baby too hard, but this is often an unconscious way which the child has of showing his power over the new baby, and it is his attempt to gain back his feeling of domination. One child turns all of his resentment toward his mother; he is more misbehaved, destructive, causes damage, instigates emotional turmoil, and in short, tries to force attention from his mother by his negativism. Another child loses all fun out of his usual play and follows his mother around from room to room apparently lost and not knowing what to do with himself. Children often revert to wetting their bed at night, some even soil themselves. This is an attempt on the child's part to have a justifiable need for demanding the mother's attention.

We should remember that every child is going to show jealousy, even though it may be masked by love on the surface. When you see outward displays of jealousy, do not punish the child and make him feel that he is an outcast, or that he incurs your displeasure by his actions. Rather, do what is necessary to protect the new baby, or the one against whom the jealousy is turned, and immediately include the child who is showing the jealousy as a part of the family picture. You can do this by turning to the child, including him in your embrace, and with comforting words, say, "I know how you feel, sometimes you wish there were no baby here." When the child finds he is not to be punished for his feelings, but that only his actions of harm are blocked, he will gradually lose the overwhelming drive to hurt, and come to see that one can have jealousy without causing destruction. At this point we should warn that the answer is not to try and show the child that he has no reason for jealousy; the answer is to allow him to find that jealousy is normal and that all we do is inhibit the outlet which can cause harm. This is the whole process of growing up, whether for the 2½-year old or the adult. Thus, the small child learns to tolerate his feelings of jealousy without being driven to extremes by them.

Another hurdle which the child has to overcome about this time, or just a little earlier, is that of being sick. Sickness is something which the child cannot understand. If he has pain or feels badly he is anxious and afraid, which results in his needing more of his mother's attention. The mother is also easily frightened concerning sickness of the child. This fear on her part is almost always transmitted to the child. She increases the child's feeling concerning his being sick and concerning his anxiety. Consequently, the child feels increasing justification in demanding his mother's time. The child who has a minor illness and quickly recovers has no lasting effect from this, but the child who has a serious illness, which remains over a period of time, is laying the foundation for a serious problem later in life. The more serious problem comes up if the child is ill enough to require hospitalization. To be taken out of his own home makes him feel insecure and if he has to be taken to a hospital, he has a feeling of rejection because of his sickness, which makes him more dependent on others, more anxious, and he requires more reassurance.

The Doctor plays a very important part in the final attitude which the father, mother, and child will take toward his illness. Too many physicians over-sell the seriousness of the disease with the idea of bolstering up their own importance. Over and over again in adult life we hear the remarks: "I almost died when I was a child"; "I have always been weak"; and, "I was never strong." In our group of children with trouble between the ages of twelve and fifteen, we hear again: "Mother says I was always puny, that I never would eat, and they had a lot of trouble getting me to take my formula"; or, "The doctor said I was lucky to be alive, that if he hadn't been called just when he was, it would have been too late." These things usually have a lasting impression on the child. Even though the child does not hear them, the parents' repeating them and exaggerating them after they have been told these things by their doctor, helps to shape the child's reaction toward his illness. One of our solutions of handling these situations, then, is to re-orient the child with relationship to disease so that he does not have a fear of the process of being sick.

Anxieties in children are manifested in many ways, and the child at different ages has a different type of anxiety. It is impossible for a child to grow up without having various periods of anxiety. We should consider this as normal. A new born child is alarmed by excessively loud noises and a fear of falling, which is of course, the loss of his equilibrium. After five to six months he recognizes the difference between friends and strangers, and if strangers approach too suddenly it causes him fear. By the time the baby is a year old he realizes that he can depend on the mother for comfort. The mother often is annoyed at this stage because the child cries each time she leaves the room. The mother hopes to keep the child in his crib or play-pen, and very frequently strenuously objects to taking him out because he requires more watching. When a child is no longer happy in his crib or play-pen, he should be placed on the floor so he can get around under his own volition. When his need for security is satisfied he will then begin to do a little exploring and move on out of the room and not need to always remain with his mother. In a few minutes his desire for company will again re-assert itself and he will come back. This is the way the normal baby develops his independence—by satisfying his need for freedom and by satisfying his need to come back. So a child should be brought into contact with strangers gradually, during his period, even though it causes him some alarm, and mothers should encourage and protect him during this period so that the anxiety will not be too great.

When a child reaches two he should have some contact with other children his own age so that he can learn to get along with people his own size. Remembering that it is easier for an individual to learn and to make an adjustment when young rather than when older, we should allow the child to learn this while he is two. He will, of course, not be able to show much capacity for cooperative play at two years of age, but this is the time for him to be started.

Any new adjustment in the family causes the child anxiety. Moving—a new member of the family coming, whether a new baby or a grandmother, or a grandfather, or an aunt coming to live with the family—or even the installing of a boarder or roomer in the home results in the feeling of uneasiness in the child and he will return to needing more attention from his mother. At this time also, the child develops an anxiety about the fear of soiling himself if too much of an issue has been made about toilet-training. All anxiousness tends to return the child to lack of bladder stability and the fear of soiling himself may arouse the fear that he will lose his mother's attention and affection.

Bedtime anxiety also comes into the picture between the ages of two and four. There are two methods of handling this—letting the child cry it out, which will usually work over a period of months, but this usually runs between two and eight months. The other solution, although it sometimes is difficult to get mothers to do it, is to have the mother sit down beside the crib until the child is asleep. The first one or two times this may take hours, but the time will shorten itself and the child will wake up in the morning without anxiety, so the actual time which is required for the child to gain reassurance is shortened. The mother going to the hospital, or going away on a visit and leaving the child again brings back all of the original anxieties, and after the mother returns it will require all of our old reassurance pattern to be rebuilt.

When a child gets to be three, he very frequently develops sudden and sometimes un-understandable fears. He becomes afraid of dogs or of his pets, or he may develop fear of death. The sight of a cripple makes him uneasy and he becomes anxious whenever his pet is run over by an automobile, or one of his playmates gets hurt, or there is a death in the family. These are all things which the child cannot understand, which he feels completely unable to cope with, and so he develops anxiety. These anxieties are more intense in children who have been over-protected, or have been forced in a too rigid feeding and toilet-training pattern. These things which the child cannot understand sometimes give rise to fears concerning sexual differences in children. Pre-occupation with the genitalia sometimes develops and when the overly-concerned parent shows anxiousness when noticing this in a child, the situation only becomes worse.

The questions of a child concerning sex and its significance is a source of considerable trouble to a great many parents. Any dodging of the question, any hushing, any of the "not nice" or "it is nasty" attitudes only increase the child's difficulties. The mystery surrounding it only increases the child's need to know and we find masturbation becoming quite a problem at this time in many children. The answer is not to become upset, but to think of it as a normal reaction, and give the child reassurance for his primary problem. Ignore the masturbation problem as such. Many modern parents have heard that it considered wrong to make a moral issue of masturbation. Many of them still believe that masturbation is particularly harmful and so they use the alternative by telling the child it is harmful and that it will hurt his body. Actually this is just as bad as far as the child is concerned because it brings on a feeling of guilt, and although he may cease masturbation, he develops an obsession and compulsive behavior because of it. The answer is to reassure the child concerning his primary problem, give him the love and affection which he needs, and ignore the question of masturbation. If it is so severe a problem that it embarrasses you too much in public, then some remark such as, "People don't think it is very polite," should be made. The doctor's part in this problem, is to reassure the mother that her child is normal and help her find the true cause of his anxiety and allay that, rather than to be upset by the masturbation itself.

CONCLUSION

The study of these one hundred cases of children from two to sixteen years of age and their primary problems indicates that the patient's trouble at the time he comes to the doctor is rarely the beginning of his difficulties. The foundation stones were laid during the first years of his life because of a too rigid pattern. There is seldom a major trauma which causes the child's difficulty. Most behavior problems are built, one upon another until their combined weight produces the maladjustment. Physicians, therefore, may lose a great deal of time in hunting for a specified trauma for the patient's difficulty. Rather, the doctor should study a longitudinal section of the patient's life in order to find the blocks which, built one upon another, finally produced the maladjustment.

A physician played a very definite role in ninety per cent of our one hundred cases. Twenty-eight per cent showed a direct influence of a physician because of the physician's ineptness in handling the emotional problems of the child early in its life. Sixty-two per cent showed an indirect influence of a physician through the parents of the child. The physician's role, then, becomes one of an understanding counselor and guide for parents. We must remember that motherhood does not in itself mean that all of these mothers know instinctively how to raise their children. Anxiety of the mother communicates itself to the child. We should therefore help these mothers to understand the changes in their children so that they will not be overly anxious and increase the child's difficulties. Knowing more about normal growth and development of the child, we can allay much of the parent's anxiety by telling them what to expect and how to meet the problems when they arise. Over-protection toward the child blocks his need to seek freedom of action, which in itself produces conflict between the child and parent. Injuries and disease are common to all of us and therefore should be accepted in a normal way, rather than with dread. We, as physicians, can do much to decrease the adult's problems by our influence upon the parents when the child is brought to us, by our common-sense approach to the situation as something normal, and thus allay the parents' anxiety. Let the doctor be a physician of the whole person, as well as a technician of bodily disease.

* * *

MORE OPERATIONS FOR STOMACH CANCER EACH YEAR—FEWER MORTALITIES

Over a ten-year period the percentage of operable cases of cancer of the stomach, which ranks second only to cardiovascular disease as the commonest cause of death in the United States, has steadily risen. During the same period the percentage of cases in which surgeons recommended gastric resection—involving the removal of part or all of the stomach—has also increased. At the same time, the mortality rates for operation have dropped remarkably.

These facts are revealed in the October 4 issue of The Journal of the American Medical Association, in which David State, M.D., George Moore, M.D., and Owen H. Wangensteen, M.D., all members of the Department of Surgery of the University of Minnesota Medical School, report a ten-year survey of the results of surgical treatment of gastric cancer at the University of Minnesota Hospitals.

However, the three doctors also report a decrease in the percentage of operations which actually cured the disease, due to the ever-increasing number of resections undertaken for temporary relief after the hope of lasting cure was gone. "The only way in which the end results may be improved is by earlier diagnosis," says the writers.

The total number of patients included in this survey was 586, and the average age was 63.2 years. (Nineteen patients were in the last stages of their disease when first seen). The number of patients operated on was 447. A partial gastric resection was performed in 276, a total gastric resection in 31. A summary of the results shows that:

—In 1936 the operability and resectability rates were 57 per cent and 28 per cent, whereas in 1945 these rates were, respectively, 88 and 80 per cent. The resectability rate for 1945, based on the number of patients explored, was 89.7 per cent.

—The mortality rate for partial gastric resection in 1936 was 25 per cent, while in 1945 it was 4.9 per cent—a figure which includes both total and subtotal gastrectomy.

—The over-all mortality rate for partial resections was 15.2 per cent, for total gastric resections 30 per cent. Of those who survived resection and whose resections took place long enough ago to be included, 29.4 per cent survived three years or more, 21.5 per cent five years or more.

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THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

ANNOUNCEMENTS

CALL FOR PAPERS! The Nebraska State Medical Convention will be held in Lincoln the first week in May, 1948. Members who wish to present papers are urged to write to Dr. R. B. Adams, 416 Federal Securities Bldg., Lincoln, and send in their titles. No papers will be accepted after January 1, 1948.

The American Academy of Allergy will hold its annual convention at Hotel Jefferson, St. Louis, Missouri, December 15-17 inclusive. All physicians interested in allergic problems are cordially invited to attend the sessions as guests of the Academy by registering without payment of fee. The program, the scientific, and technical exhibits have been arranged to cover a wide variety of conditions where allergic factors may be important. Papers will be presented dealing with the latest methods of diagnosis and treatment as well as the results of investigation and research. Round table conferences will be held on Monday afternoon, December 15, 1947. Advance copies of the program may be obtained by writing to the Chairman on Arrangements, Charles H. Eyermann, M.D., 634 North Grand Boulevard, St. Louis, Missouri.

The sixth annual meeting of the American Academy of Dermatology and Syphilology will be held in Chicago from Saturday, December 6 through Thursday, December 11, it is announced by Dr. Earl D. Osborne, secretary-treasurer of the Academy, 471 Delaware Ave., Buffalo, N. Y.

The principal sessions will be held at the Palmer House, with special courses in histopathology and mycology scheduled for Saturday and Sunday, December 6 and 7, at the Medical Schools of the University of Illinois and Northwestern University. Teaching clinics will be held at the University of Illinois College of Medicine in Chicago on the afternoons of December 8, 9, and 10.

UROLOGY AWARD

The American Urological Association offers an annual award of $1,000.00 (first prize of $500.00, second prize $300.00 and third prize $200.00) for essays on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Hotel Statler, Boston, Massachusetts, May 17-20, 1948.

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee. Essays must be in his hands before March 1, 1948.

The next written examination (Part I) of the

American Board of Obstetrics and Gynecology candidates will be held in various cities of the United States and Canada on Friday, February 6, 1948, at 2:00 p.m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year.

A number of changes in Board regulations and requirements were put into effect at the last annual meeting of the Board held in Pittsburgh, Pennsylvania, from June 1 to June 7, 1947. Among these is the new ruling that the Board does not subscribe to any hospital or medical school rule that certification is to be required for medical appointments in ranks lower than Chief or Senior Staff of hospitals, or Associate Professorship in Schools of Medicine, for the obvious reason that such appointments constitute desirable specialist training. At this meeting the Board also ruled that credit for graduate courses in the basic sciences which involve laboratory and didactic teaching rather than clinical experience or opportunities will be given credit for the time spent up to a maximum period of not more than six months regardless of the duration of the course.

Applications are now being received for the 1948 examinations. Closing date for these applications will be November 1, 1947.

For further information and application blanks address Paul Titus, M.D., Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

NEWS and VIEWS

NEW ASSOCIATE EDITOR OF JOURNAL

Dr. Morris Fishbein, editor of The American Medical Association, announced early in October that Dr. Richard J. Plunkett has taken over his duties as associate editor of The Journal. Dr. Plunkett, who formerly was vice president and director of the Division of Health and Sanitation of the Institute of Inter-American Affairs in Washington, D.C., received his M.D., degree from Tufts Medical College in 1933 and his master's degree in public health from Harvard in 1939.

Seventeen candidates for licenses to practice medicine in Nebraska have been approved after examinations at Omaha last June.

Park S. Gerald, John A. Lombardo, Daniel S. Roccaforte, Perry T. Williams, Jr., Richard B. Svehla, Willard G. Kuehn and Thomas J. Malee, all of Omaha.

John M. Bubany, Clay Center; Louis L. Ericson, Stromsburg; Elmer H. Reeves, Madison; Charles F. Heider, North Platte; Richard J. McCarten, Butte, Mont.; Robert J. Havel, Montgomery, Minn.; Paul Lee, Spokane; Joseph H. Albers, Humphrey, Nebr.; John J. McGahan, Elsie; Jack R. Zastera, Syracuse, Nebr.

RESEARCH ON ORTHOPEDIC APPLIANCES AT MELLON INSTITUTE

Announcement has been made by Edward R. Weidlein, Diretcor, Mellon Institute, Pittsburgh, Pa., of the establishment there of a comprehensive multiple research fellowship on orthopedic appliances by the Sarah Mellon Scaife Foundation of Pittsburgh. The program will be planned and carried out for the benefit of mankind through the medical profession.

Under the guidance of orthopedists and with the cooperation of leading organizations in the field as well as of manufacturers of orthopedic appliances, the fellowship will conduct broad scientific investigation and development relating to such appliances. Particular attention will be accorded to problems of mechanical design, improvements in materials of construction, and methods of fitting braces and similar orthopedic devices.

The medical advisory committee of the fellowship is under the chairmanship of Paul B. Steele, M.D., Professor and Head, Department of Orthopedic Surgery, School of Medicine, University of Pittsburgh.

Award of more than $375,000 in Public Health Service grants for cancer research and study was announced early in October by Oscar R. Ewing, Federal Security Administrator.

These grants will finance research on improved techniques for professional cancer instruction; a nationwide survey of cancer clinics; and evaluations of various cancer control measures, according to Dr. A. V. Deibert, chief of the cancer control subdivision of the National Cancer Institute and author of the report.

Reviewed and approved by the National Advisory Cancer Council, a non-governmental committee of cancer specialists, today's awards are part of the 14 million dollar cancer research and control program authorized by Congress for the current fiscal year.

RAIL WORKERS URGED TO FILE SICKNESS CLAIMS PROMPTLY

K. R. Harbour, District Manager for the Railroad Retirement Board, recently urged railroad workers claiming sickness benefits to file their applications promptly. The Board spokesman explained that in order to avoid the loss of benefits, a claimant must mail his application not later than the seventh day after the first day of sickness claimed. If it is mailed any later, it may not be received within the legal time limit and one or more days' benefits may be lost. "For example," Harbour said, "if a man claims benefits beginning October 1, but notice of his sickness is not received until October 15, the earliest day on which his registration period can begin is October 6. As a result, he will lose 5 days' benefits."

Harbour also emphasized that a claimant should enclose his 1946 Certificate of Service Months and Wages, Form BA-6, if he has one, with his application, thereby speeding action on his claim. Forms BA-6 are statements of earnings prepared each year by the Board for railroad workers, and the amount of benefits which the claimant will receive for each day of sickness is based on his 1946 railroad earnings.

Application blanks, which are pre-addressed and which can be mailed without envelopes, may be obtained at the Board office located at Room 1108 WOW Bldg., Omaha, at offices of railroad officials, or from the local secretaries of the railroad Brotherhoods. If an employee is not able to pick up the form himself, he may have some member of his family or a fellow employee get it for him. Additional information on filing sicknss applications may be obtained by calling in person or by writing to the Board's office located at Omaha.

HOSPITAL NEWS

A Nebraska hospital survey and construction plan was discussed Sunday, October 5, by members of the Nebraska hospital advisory council.

It was the first meeting of the group which was recently appointed by the governor. The council is to meet again Nov. 9. At that time it may be possible to adopt a plan and submit it to the proper authorities for consideration.

Rules and regulations for licensing Nebraska hospitals were also discussed but no action was taken. These will be up for approval at the next meeting.

The council has the responsibility of developing a hospital plan and if approved, will make federal funds available to communities for hospital construction and improvement.

Members of the council are: Dr. Roy Fouts, Omaha; Dr. Earle G. Johnson, Grand Island; G. Paul Spence, Franklin; Harry Lainson, Jr., Hastings; C. B. Bentley, Sidney, and T. S. Hook, Wayne.

Seventy communities have made inquiry to the state health department on how to file applications for grants-in-aid under the Hill-Burton bill passed by congress, Dr. W. S. Petty, state director of health, announced recently. He said application information would not be available for several weeks.

Areas interested in participating in the estimated $700,000 that will be available for hospital construction will be given opportunity at the hearings to outline their needs. The five-year program for federal aid on a one-third basis has been approved by congress although no money has been appropriated. Local communities will have to subscribe two-thirds.

Only non-profit organizations are eligible to participate in the federal funds and the state plan will be directed to improve hospital service to all parts of the state, Dr. Petty said.

According to local press reports a movement to establish a hospital at Hayes Center has progressed to the point where a stock company is being organized to secure and operate a hospital.

A committee has been appointed to form the company and to sell stock to the people of Hayes county.

At present, the nearest hospital is about 45 miles away and it is difficult to get patients admitted because of crowded conditions.

WOMAN'S AUXILIARY

Following dinner with the doctors, the Adams County Medical Auxiliary met at Ingleside the evening of October 1st.

The Secretary, Mrs. R. H. Schaefers, presided at a short business meeting. Mrs. L. F. Egen reported on the Board meeting in Omaha. She stressed the importance of the "Bulletin" and took subscriptions.

Mrs. Schaefers reported that two new subscriptions to "Hygiea" had been placed.

Mrs. H. F. Anderson introduced Miss H. M. Galloway from Norfolk, England, who spoke on her life as an English school mistress during and since the war.

One guest, Mrs. Davis, of Hawaii, was present.

Fall Board meeting of the Woman's Auxiliary to the Nebraska State Medical Association was held at the Omaha Athletic Club Tuesday, 10:00 a.m., September 23rd, 1947, with the President, Mrs. Maurice Grier, presiding. Those present were: Mesdames C. F. Ferciot, Glen Whitcomb, William O'Gorman, A. Offerman, L. F. Egan, Maurice Neilsen, Clarence Rubendall, W. Carveth, Floyd Rogers, G. Robertson, Edmond Walsh, Honorary Board Member, Mrs. C. C. Tomilson, and President-Elect, Mrs. P. O. Marvel.

Minutes of Pre-Convention and Post-Convention were read by Secretary, Mrs. Edmond Walsh, and were approved. The Treasurer's report was read by Mrs. Walsh in the absence of the Treasurer, Mrs. H. O. Bell.

Organization of new Auxiliaries, increase in membership and formation of Study Groups were stressed as our year's work. Reports were given by the Committee Chairmen. The Nominating Committee appointed was: Mrs. E. S. Wegner, Chairman, Mrs. J. Harry Murphy, Omaha, Mrs. L. F. Egan, Hastings, Mrs. J. M. Woodard, Aurora, and Mrs. H. S. Morgan, Lincoln.

Meeting adjourned at 12:30. Luncheon followed.

PUBLIC RELATIONS

What does the term "Public Relations" signify?

It is that contact of friendship and mutual understanding between ourselves, the members of our profession, and the people with whom we come in contact. It is the means of building a firmer foundation of understanding between the medical profession and the public.

We know that the very front line of Public Relations is that person to person contact in a doctor's office, and now the medical profession have asked their wives to assist them, in furthering this relationship with the public, through the means of the Auxiliary.

As in any organization, it is each individual member, each doctor's wife who is important in the part she plays in helping to mold public opinion. In this person to person contact our lives must be above reproach, we must be able to bear scrutiny. In this the women have a greater opportunity than the men. It is in our power to command that position of respect.

You ask in what way that can be done?

The simplest phase of public relations, of course, is our daily contact with others. It is in making friends, it is what we say to our grocer, our butcher, our newspaper carrier boy, the visitor in our home — that molds their opinion of us personally and professionally.

We must be unselfish in our interest in the community, be alert to the news items in the daily newspapers in regard to medical science and health matters, the articles appearing in the magazines and the talks and stories coming to us over the radio. It is our responsibility to see that the public is aware of our activities in health matters. To be well informed on these subjects and be able to tactfully give the correct information or pass along the needed suggestions on these subjects, is a responsibility we must assume and fulfill.

We can encourage and join in the growing movement to make the public a partner to our public relations campaign, by actively participating in our Church groups, P.T.A., the Red Cross and Study Groups. We should be helpful and interested in the health days, polio, cancer and T.B. drives, hospital guest days, help on the Community Chest drives and all educational campaigns in regard to health. We can assist and aid in the nurses recruiting drives.

Probably the most constructive piece of good medical public relations offered to date, are the Prepayment plans for health care, such as: the Blue Cross plan for Hospital care and the Blue Shield plan for medical care, (The Nebraska Medical Service). These fine plans provide high quality health care in a very economical manner.

Individual physicians and medical societies have spent a great deal of effort and money, over the years investigating and testing means of improving the distribution of medical care and of reducing the cost.

Voluntary prepayment plans for medical and hospital care are the result of years of study and experimentation. The basic principles have been developed to protect the public, maintain and encourage the advancement of medical science and allow the physicians freedom to practice according to the highest professional standards. Voluntary arrangements require that individuals be responsible for their own health.

People can be educated to greater consciousness of individual responsibility for their welfare, but, it is not as easy as leading them into increased government responsibility, particularly when the governmental agencies make use of tax funds and deficit financing, to increase the desire of the people for more governmental services. Voluntary insurance and prepayment arrangements for medical care are an important factor in encouraging individual responsibility. These fine voluntary prepayment plans are being made available to encourage people to accept greater responsibility for their health care.

We, as members of the Auxiliary to the Nebraska State Medical Association, are proud of the part that the Doctors have played in the development of the Blue Cross plan for hospital care and the Blue Shield plan for medical care. It is our opportunity and responsibility to inform the public of these fine plans to preserve the present high quality of health care in the United States, which is now acknowledged to be the best medical service in the world today.

MRS. A. J. OFFERMAN,
Chairman, Public Relations.

AMERICAN NURSES' ASSOCIATION

AMERICAN NURSES' ASSOCIATION ISSUES STATEMENT ON CAUSES OF NURSING CRISIS AND PROPOSED PROGRAM TO REMEDY IT

Speaking for its 155,000 registered professional nurse members, the American Nurses' Association issued a statement to the public October 8 on the critical situation in nursing facing the American people. The statement was issued from the national headquarters office, 1790 Broadway, New York City, through the Association's executive secretary, Ella Best. The statement declared that "the public must be roused to a clearer understanding of the present crisis in nursing if the situation is to be met and the health of the American people is to remain safeguarded."

The statement analyzed the underlying problems in the present nursing crisis and outlined a three-point program by the Association designed to aid in enlisting the cooperation of other groups to help solve the problem. The ANA's statement also revealed that Katharine J. Densford, the Association's national president, will conduct a nation-wide roll-call from Minneapolis by telephone on October 20th, calling on the presidents of the professional nurses' associations of the forty-eight states, the District of Columbia, Puerto Rico and Hawaii, to pledge their support in the fight to help solve the problem. The statement said the American Nurses' Association had appropriated funds for the activity, had appointed a public relations committee with Harriet Stambach, R.N., as chairman and had retained Edward L. Bernays, counsel on public relations.

Pointing out that the demand for nurses has sky-rocketed in the last few years, both during and since World War II, the ANA statement indicated that a number of factors are not only deterring would-be nurses from joining the profession but are discouraging many nurses who are already registered, from continuing their professional activity.

These factors were defined as:

1. Inadequate economic security and unsatisfactory conditions of employment.

2. Lack of adequate legal control of nursing by the states.

3. Faulty distribution of nursing service.

ECONOMIC SECURITY

On economic security, the ANA statement described the economic status of nurses since 1873 when nursing schools were first established in the United States.

"Long hours, split shifts, lack of retirement provisions and minimum salary increases have characterized the nurses' working conditions," it declared, "while, at the same time, the responsibilities of nurses have greatly increased, thus requiring higher standards of education and performance. The average requirement for professional nurse preparation is a high school diploma plus three years of nursing school education. According to U. S. Department of Labor statistics for October, 1946, the average cash salaries for nurses in all fields, with the majority providing their own living quarters, amount to $170 to $175 per month. One out of every four nurses receives less than $145 per month. The vast majority of nurses work a 48-hour week, while a great many, owing to increased patient loads, still work as many as 54 or more hours a week."

The American Nurses' Association has encouraged state nurses' associations to undertake to act as the duly authorized representatives of professional nurses in all matters affecting their economic status including collective bargaining. The ANA appeals to the public to accept its responsibility of helping the profession to bring about reforms in providing economic security which are as vital to the public welfare as they are to the individual nurse.

INADEQUATE LEGAL CONTROL

On legal control, the ANA statement said that at the present time there is wide variation in the standards for accredited schools of nursing and for registration of professional nurses in the several states. The first registration law was enacted in 1903 and since that time forty-eight states, the District of Columbia, Alaska, Hawaii and Puerto Rico have passed laws providing standards for the registration of professional nurses. Only twenty-six states and Hawaii and Peruto Rico, now have laws providing licensure for practical nurses. Only two states have laws requiring licensure of all who nurse for hire. Without such laws in all states the public is at the mercy of many unqualified and unlicensed persons.

According to the ANA's statement, in spite of the large number of nurses graduated from the 1,250 state accredited schools of nursing, many factors have combined to create unprecedented demands for additional nursing service. Some of these are: the increased public interest in health care, the development of Blue Cross hospital plans, increased hospital construction, Federal social legislation, and improved health education. The exploitation of student nurses by many hospitals has been a deterring factor in the effort made by the profession to provide an adequate supply of qualified nurses. Too many hospitals in order to obtain an inexpensive supply of nursing service have developed schools of nursing, but have sacrificed the educational needs of students to their own needs for nursing service.

In the public interest the ANA stands for control by law of nursing practice, both professional and practical.

FAULTY DISTRIBUTION

On distribution of nurses, it was stated that the ANA stands for nursing service equally available to all who need nursing care, regardless of economic status, in both rural and urban areas.

Nurses, like all other professional groups, tend to concentrate in metropolitan areas where research and educational facilities are available, where a more satisfying social life is possible, and where economic conditions are more favorable.

The ANA, with the cooperation of the state nurses' associations, has organized a non-profit, nation-wide counseling and placement service available without charge to nurses and employers alike. This activity is designed to promote a more equitable distribution of nursing service. Miss Densford, in her telephone roll-call, will set in motion programs aimed to further expand and strengthen this activity.

"No one solution, pat plan, panacea will cure the situation. Many groups—law-makers, hospital administrators and trustees, governmental officials, physicians, social welfare groups and the nurses themselves must work together to solve the vital problems which are of such great concern to the health of the American people.

"The American Nurses' Association, with all its resources, pledges itself to work to the limit in initiating and furthering activities to cope with this situation. The Association is cooperating with committees from other social groups, so that they too may recognize the problems and assist in meeting them.

"The increased demand for registered professional nurses by the American public must be met. If the public has a clear recognition of the problem, it will be better able to help in the solution and will then be assured of the nursing care, of the quality and quantity, to which it is entitled. However, nursing must be made competitive with other careers if it is to attract young women today. Adequate economic security must be assured to nurses. Hospitals must not be permitted to exploit nurses. Legislation must be put on the statute books in every state which will provide for high standards in nursing education and nurse licensure to the end that the public will receive only the highest quality of nursing service.

"If the right kind of women are to come into nursing in the number that the public demands and that the public health requires, these conditions must be met. The American Nurses' Association pledges itself to do all in its power to bring this about."

1947 EDITION OF PARERGON

Parergon (work by the side of work) is Mead John & Company's picture book of artistic works by physicians.

The current edition is a book of 208 pages and shows 1,100 examples of creative art by contemporary physicians.

This book is available without charge only to physicians upon request of Mead Johnson & Company, Evansville 21, Ind., U.S.A.

KNOW YOUR NEBRASKA MEDICAL SERVICE

A monthly column interpreting the Nebraska Medical Service, presented in the interest of efficient Plan operation.

Your colleagues are returning their signed "Participating Physicians' Agreements." Have you neglected returning yours?

All claim forms must indicate diagnosis as well as the name of the surgical operation performed.

Nebraska Medical Service (Blue Shield) is not an insurance company. It is a non-profit plan presented to the public as "The Doctors' Plan." It is your own organization—sponsored by your medical societies.

Physicians' personal signatures are required on all claim forms. Rubber stamp imprints are not acceptable.

The success of the Medical Service Plan is in your hands. The attitude of your office—you and your secretary—is important in molding public opinion.

Universal participation by the medical profession in a successful voluntary medical plan will make a compulsory system unnecessary.

REPORT OF EXECUTIVE DIRECTOR OF NEBRASKA MEDICAL SERVICE

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS

September 30, 1947

Cash on hand, September 1, 1947		$42,074.95
Receipts:		
From dues	$23,029.25	
From enrollment fees	1,118.00	
Taxes deducted from salaries	36.80	24,184.05
		$66,259.00
Disbursements:		
Claims paid	$13,488.00	
Administrative expense	4,558.32	
Salary, Executive Director	200.00	
Secretarys' fee	75.00	
Medical Adviser	75.00	
Attorney	75.00	
Advertising	326.77	
Printing and stationery	535.17	
Hospital record	2.00	
Collection expense	8.48	
Refunds	132.50	
Exchange	-------	
Taxes paid	1.00	
Dues	15.10	
Home office travel and expense	251.43	
Postage	-------	
Insurance	70.26	19,814.03
Cash on hand, September 30, 1947		$46,444.97
Bank Balances, September 30, 1947—		
Packers National Bank, Omaha		$45,297.81
First National Bank, Omaha		1,147.16
		$46,444.97

NEBRASKA MEDICAL SERVICE
BALANCE SHEET

September 30, 1947

Assets:		
Cash in bank	$46,444.97	
Premiums in process of collection	13,570.63	
U. S. bonds (cost plus accrued interest)	50,083.05	
Associated Hospital Service—administration expense refund account	379.02	$110,477.67
Liabilities:		
Accounts payable, Blue Cross	$ 4,886.73	
Accounts payable, monthly invoices	1,160.72	
Accrued payroll taxes	116.40	
Claims payable		
Unreported	6,000.00	
Pending	7,663.00	
Accrued audit expense	300.00	
Unearned premiums	30,765.78	
	$50,892.63	

Reserve for Public Relations Campaign		$ 1,350.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	38,785.04		
		58,235.04	
			$110,477.67

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE

September 30, 1947

	Month of September	9 Months to Date
Income:		
From dues	$ 26,030.50	$182,018.38
From enrollment fees	1,118.00	7,150.00
Interest, U. S. Bonds	--------	187.50
	$ 27,148.50	$189,355.88
Expense:		
Claims	$ 18,190.50	$133,457.00
*Administrative expense	4,535.86	31,488.16
Salary, Executive Director	200.00	1,800.00
Medical Adviser	75.00	675.00
Legal	75.00	675.00
Auditing	100.00	900.00
Advertising	481.17	2,870.02
Stationery	9.30	90,64
Printing	342.40	3,083.02
Home office travel and expense	251.43	868.40
Dues	15.10	106.07
Postage	--------	64.22
Taxes and licenses	332.85	407.26
Collection expense	8.48	90.07
Miscellaneous	4.00	99.31
Insurance	70.26	70.26
Professional fees, E.K.M.	75.00	675.00
	$ 24,766.35	$177,419.43
Net Gain	$ 2.382.15	$ 11,936.45

*Administrative expense—September	$ 4,886.73
Less refund for August	350.87
	$ 4,535.86

PER CENT OF EARNED INCOME FOR OPERATING EXPENSES

	Month of Sept.	Year to Date
Per cent for claims	67.0%	70.5%
Per cent for Administrative costs	24.2%	23.2%
Percent added to Reserves	8.8%	6.3%
	100.0%	100.0%

MEMBERSHIP SUMMARY—SEPTEMBER, 1947

	Subscribers	Dependents	Total
1. Membership, Septembtr 1, 1947	14.501	20,068	34.569
Additions	1,263	1.778	3,041
Cancellations	275	302	577
Membership, October 1, 1947	15,489	21,544	37,033
2. Number of groups now enrolled			953
3. Number of groups added during September			99

SEPTEMBER ENROLLMENT BY COUNTY

ADAMS—9 members.
BOX BUTTE—1 group, 8 members.
BUFFALO—2 members.
BUTLER—1 member.
CASS—1 member.
CHEYENNE—8 members.
CUSTER—1 member.
DAWES—2 groups, 22 members.
DEUEL—1 member.
DODGE—4 members.
DOUGLAS—7 groups, 172 members.
DUNDY—1 member.
FURNAS—2 members.
GAGE—5 members.
HALL—19 groups. 244 members.
HAMILTON—1 member
JEFFERSON—11 groups, 74 members.
KEITH—1 member.
LANCASTER—3 groups, 172 members.
LINCOLN—1 group, 36 members.
LOGAN—1 member.
NUCKOLLS—1 member.
OTOE—2 members.
PAWNEE—1 member.
PLATTE—1 group, 12 members.
RED WILLOW—7 members.
RICHARDSON—10 groups, 82 members.
SARPY—1 member.
SCOTTSBLUFF—37 groups, 332 members.
SEWARD—1 member.
SHERMAN—1 member.
YORK—7 groups, 57 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT

September, 1947

Number of claims paid	308
Number of services rendered	340
Females	181
Males	127
Subscribers	121
Dependents	187

Type of Service	Number	Amt. Pd.
Anesthesia	4	$ 40.00
Appendectomies	23	2,205.00
Eye	5	130.00
Gall Bladders	3	450.00
General Surgery	21	1,700.00
Gynecology	23	2,285.00
Hemorrhoids	8	355.00
Herniotomies	3	300.00
Minor Surgery	52	393.50
Nose and Throat	11	280.00
Obstetrics	22	1,135.00
Orthopedics	25	1,120.50
Pathology	3	14.00
Radiation Therapy	–	--------
Tonsillectomies	34	1,190.00
Transfusions	4	80.00
Urology	12	425.00
X-rays	53	522.00
Medical	34	867.00
	340	$13,492.00
Amount of claims in process of settlement		$ 7,663.00

PHYSICIANS WHO HAVE SIGNED PARTICIPATING AGREEMENTS

As of October 13, 1947

COUNCILOR DISTRICT NO. 1

OMAHA—Charles Abbott, John A. Aita, Verne E. Alder, George Alliband, H. T. Allingham, M. C. Andersen, L. L. Anderson, Leo Anderson, W. Armbrust, L. L. Arntsen, M. W. Barry, Julius G. Bartek, Meyer Beber, Frederick Beck, R. Russell Best, J. Dewey Bisgard, Albert Black, James B. Blair, L. C. Bleick, C. M. Bonniwell, J. A. Borghoff, H. N. Boyne, James D. Bradley, H. H. Brinkman, M. H. Brodkey, Andrew D. Brown, Alfred Brown, Donald Bucholz, B. C. Burns, S. J. Carnazzo, Paul T. Cash, W. A. Cassidy, Nancy Catania, John Chaloupka, J. B. Christensen, Floyd Clarke, E. Colglazier. Joseph J. Comine, Earl A. Connolly, J. E. Courtney,

Edwin Davis, Herbert H. Davis, J. Calvin Davis, Robert F. Day, Henry L. DeLong, C, Distefano, Andrew G. Dow. D. A. Dowell, Joseph P. Brozda, J. W. Duncan, Richard Egan, William J. Egan, H. R. Elston, Neill J. Everitt, Ben F. Ewing, John D. Ewing, R. J. Fangman, C. H. Farrell, A. C. Fellman, James F. Finegan, A. I. Finlayson, John C. Follman, Roy W. Fouts, C. Frandsen, J. J. Freymann, John W. Gatewood, John J. Gleeson, M. C. Green, A. Greenberg, M. Greenberg, Arthur M. Greene, T. J. Gurnett.

W. N. Hahn, Lynn T. Hall, W. R. Hamsa, L. E. Hanisch, Charles Hankins, G. M. Hansen, C. H. Hansen, W. N. Ardman, Clyde C, Hardy, C. M. Hartmann, J. M. F. Heumann, F. C. Hill, H. Hirschmann, Lloyd O. Hoffman, C, F. Hollenback, J. M. Horwich, Harley Hotz, Leo V. Hughes, Wayne Hull, H. H. Humphrey, W. E. Hungerford, Howard B. Hunt. Sven Isacson, F. J. Iwersen, J. C. Iwersen, Herman M. Jahr, Harry Jenkins, Herman Johnson, A. C. Johnson, Wesley Jones, J. H. Judd, G. J. Kadavy, J. Jay Keegan, William Kelley, James F. Kelly, William T. Kemp, T. A. Kempf, J. C. Kennedy, B. V. Kenney, Frank Klabenes, John R. Kleyla, William Kroupa, Herman E. Kully, Arnold W. Lempka, Frank T. Lovely, J. F. Lucas, E. L. MacQuiddy, C. C. Madsen, S. Mangimelli, E. T. Manning, R. E. Marble, M. Margolin, J. Milton Margolin, James W. Martin, Z. E. Matheny, R. Thornell Mauer.

G. P. McArdle, J. S. McAvin, J. D. McCarthy, Harry McCarthy, Arnol McDermott, T. R. McDonnell, E. I. McEachen, John W. McGee, Leon S. McGoogan, L. D. McGuire, C. McLaughlin, W. J. McMartin, Charles McMartin, J, W. Mcnamara, C. C, Millett, Charles F. Moon, Louis E. Moon, Clyde Moore, Ralph C. Moore, W, H. Morrison, R. Allyn Moser. G. K. Muehlig, Albert V. Murphy, Charles Murphy, Floyd C. Nelson, Edward C. Nemec, Harold N. Neu, Oliver C. Nickum, John R. Nilsson, John F. Nilsson, William J. Nolan, William F. Novak, A. J. Offerman, Wm. D. O'Gorman, J. J. O'Hearn, Charles A. Owens, George Prichard, A. C. Pruner, W. H. Quigley, R. H. Rasgorshek, Paul S. Read. J. P. Redgwick, Bryan M. Riley, C. Rubendall, A. S. Rubnitz, B. C. Russum.

Adolph Sachs, Earl C. Sage, W. H. Schmitz, Robert Schrock, F. J. Schwertley, N. C. Scott, Math. J. Severin, Philip Sher, C. J. Shramek, George Simanek, F. L. Simonds, John E. Simpson, Edward J. Smith. Thomas T. Smith, Joseph E. Sobota, H. F. Staubitz, R. J. Stearns, W. David Steed, Maurice Stoner, W. R. Strickland, W. L. Sucha, S. A. Swenson, Joseph Swoboda, John A. Tamisiea, W. H. Taylor, John M. Thomas, C. A. Tompkins, C. Q. Thompson. D. H. Thompson, Warren Thompson, C. O. Thompson, Paul W. Tipton, Thomas W. Torpy, James Vaverka, C. J. Verges, James G. Vetter, Edmond M. Walsh. Chester Waters, F. M. Watke, F. J. Wearne, Glenn Whitcomb, Donald J. Wilson, Willis D. Wright, G. A. Young, A. J. Young, Richard H. Young.

D. E. Baca, Papillion.

COUNCILOR DISTRICT NO. 2

J. W. Brendel, Avoca; L. N. Kunkel, Weeping Water; Howard Liston, O. E. Liston, Elmwood; Roland W. Tyson. Murray.

Lincoln—R. B. Adams, W. L. Albin, Floyd A. Alcorn, James Anderson, Everett E. Angle, Paul M. Bancroft, W. W. Bartels,

W. C. Becker, Paul Black. D. J. Bowman, Earl B. Brooks, John Brown, W. A. Campbell, W. W. Carveth, James D. Case, J. G. Clothier, George W. Covey, Roy Crook, Clarence Emerson, C. L. Fahnestock, C. F. Ferciot, B. A. Finkle, H. E. Flansburg, M. D. Frazer, R. Garlinghouse, L. V. Gibson, E. W. Hancock, Charles W. Harms, H. E. Harvey, F. H. Hathaway, Paul J. Heidrick, Elmer T. Hobbs, K. S. J. Hohlen, J. J. Hompes, R. O. Hummel, George E. Lewis, J. R. Loudon, Guy W. Matson, John T. McGreer, N. R. Miller, G. H. Misko, Horace Munger, A. D. Munger, J. M. Neely, R. C. Olney, H. Winnett Orr, Leonard J. Owen, LaVern Pfeifer, James Podlesak, D. S. Rausten, F. L. Rogers, E. W. Rowe, Paul A. Royal, D. D. Sanderson, G. E. Stafford, Robert J. Stein, Richard M. Still, Rex M. Strader, A. F. Taborsky, Frank H. Tanner, Harry A. Taylor, F. F. Teal, Fritz Teal, S. T. Thierstein, B. E. Thomson, J. E. M. Thomson, B. M. Thomson, Paul Thorough, Ruth A. Warner, E. S. Wegner. H. H. Whitlock. Roy H. Whitman, Maynard A. Wood, H. H. Zinneman, E. A. Rogers.

L. D. Dieter, C. J. Formanack. Syracuse; W. C. Kenner, Jr., D. D. Stonecypher, T. L. Weekes, Nebraska City.

COUNCILOR DISTRICT NO. 3

E. P. Bachle, Liberty; C. R. Brott, H. R. Brown, R. Brown, H. F. Elias. Dr. Hepperlen, Jr., D. P. McClerry, D. H. Penner, E. L. Penner, S. M. Rathbun. J. C. Waddell, W. W. Waddell, W. T. Wildhaber, Beatrice: J. C. Nelson, Wymore: C. E. Rice, Odell; J. T. Waggener. Adams; J. A. Lanspa. E. Van Ackeren. Tecumseh; Edgar Cline, I. W. Irvin, F. L. Krampert, P. M. Scott, Auburn; C. W. Pollard. Peru; A. B. Anderson, Pawnee City: E. L. McCrea. Table Rock; H. C. Stewart, Pawnee City; W. D. Ketter, E. Lennemann, Wm. Shepherd, M. L. Wilson, Falls City.

COUNCILOR DISTRICT NO. 4

J. W. Bennie, Clearwater; E. E. Curtis, Neligh; W. G. Fletcher. Orchard: R. P. Carroll, Laurel; A. E. Cook. Randolph; F. G Dewey. Coleridge; F. P. Dorsey, Sr., F. P. Dorsey, Jr., J. D. Kovar. Hartington; G. E. Peters, Randolph; A. W. Anderson. Harrison Merle, J. W. Vincent, West Point; W. D. Hansen. Wisner; E. V. Avakian. Emerson; Ben Schnee, South Sioux City; Max C. Coe, Wakefield; R. C. Richards, Newcastle; R. H. Burrell. Creighton; M. H. Carrig. R. H. Kohtz. Bloomfield; S. R. Neil. Niobrara; W. E. Wright, Creighton; R. E. Barr, Meadow Grove; F. L. Garner, Madison; F. X. Rudloff, Battle Creek; S. H. Brauer, E. L. Brush. G. D. Conwell, B. R. Farner, G. B. Salter, G. L. Sandritter, G. P. Slaughter, E. C. Slaughter. G. J. Stewart, Norfolk; W. I. Devers, Pierce; Roy M. Matson. Wayne.

COUNCILOR DISTRICT NO. 5

J. S. McNeil. Albion; Wm. J. Reeder. Cedar Rapids; G. W. Sullivan, St. Edward; H. W. Benson, Oakland; Isaih Lukens, L. Morrow, L. E. Sauer, Tekamah; H. G. Williams. Decatur; H. D. Myers, Howells; Andrew Harvey, G. A. Haslam. Willard H. Hill, H. N. Morrow, C. P. Seiver, R. T. Van Meter, D. B. Wengert, Fremont; J. Y. Racines, Palmer; K. R. Dalton, Genoa; A. W. Abts, Humphrey; A. A. Bald, Platte Center; R. C. Anderson, Dr. Brillhart, M. C. James, E. E. Koebbe, Herbert D. Kuper, H. D. Kuper, P. H. McGowan, F. H. Morrow, Columbus; D. M. Bloch. R. A. Davies, Arlington; R. F. Sievers, Blair.

COUNCILOR DISTRICT NO. 6

L. J. Ekeler. E. N. Heiser, David City; O. E. Longacre, Rising City; D. B. Steenburg, E. K. Steenburg, Aurora; O. M. Troester. Hampton; I. M. French, Wahoo; H. F. Friesen, Yutan; M. E. Lathrop, Wahoo; Wm. W. Noyes, Ceresco; J. M. Packer, Ashland: C. W. Way, Wahoo; W. Ray Hill, Milford; J. W. Carr, B. E. Morrow, J. Morrow, R. D. Smith, Seward.

COUNCILOR DISTRICT NO. 7

H. V. Nuss, Sutton; A. A. Ashby, Fairmont; R. L. Cassel, D. O. Hughes, M. J. Powell, Fairbury; C. T. Mason, C. G. McMahon, A. I. Webman, Superior; A. Blattspieler, Tobias; L. W. Forney, R. W. Homan, F. J. Stejskall, Crete; Harvey D. Runty, DeWitt; F. A. Mountford, Davenport; J. Guy Tucker, Alexandria.

COUNCILOR DISTRICT NO. 8

R. E. Kriz, Lynch; R. R. Brady. W. D. Lear, Ainsworth; T. W. Deakin, John E. Farner, W. E. Johnson, Valentine; O. W. French. O'Neill; N. P. McKee, Atkinson; S. A. Swenson, Hay Springs; Frank W. Wanek, Gordon.

COUNCILOR DISTRICT NO. 9

C. B. Edwards. A. A. Enos, H. C. Hansen, W. E. Nutzman, Kearney; O. C. Ehiers, Ravenna; J. W. Laughlin, Elm Creek; C. L. Bowman. P. H. Carothers, T. Koefoot, Jr., T. Koefoot, Sr., Broken Bow; Clyde W. Wilcox, Ansley; A. W. Anderson, H. E. Dorwart, T. Y. Dorwart, V. D. Norall, P. B. Olsson, R. S. Wycoff, Lexington; J. M. Ayres, H. M. Harvey, E. C. Stevenson, Gothenburg; L. H. Fochtman, C. E. Hranac, C. H. Sheets, Cozad; J. B. Kile. Eddyville; B. W. Pyle, Dawson; J. L. Brannen, Greeley; James E. Lewis, Scotia; A. E. Mutz, Spalding.

GRAND ISLAND—J. S. Anderson, W. J. Arrasmith, J. F. Campbell, R. C. Cowger, G. H. Dedemay, E. Farnsworth, W. H. Homhach, E. G. Johnson, C. H. Maggiore, R. D. Martin, K. F. McDermott, J. C. Newman, J. A. Proffitt, J. V. Reilly, Howard Royer, Frank Ryder, A. P. Synhorst, D. C. Watson. J. G. Woodin.

M. O. Arnold, E. C. Hanisch, Loren E. Imes, St. Paul; C. G. Amick, Harry A. Knauff, Loup City; C. A. Rydberg, Litchfield; Frank A. Barta, C. J. Miller, Ord.

COUNCILOR DISTRICT NO. 10

HASTINGS—J. W. Brown, G. Paul Charlton, E. A. Coats, L. F. Egen. C. W. Guildner, A. E. Harrington, D. W. Kingsley, O. A. Kostal, John L. Mace, J. C. Nielsen, R. H. Schaefers, J. E. Uridil, Clarence Weber, Wm. M. Wegmann, W. M. Wegmann; Fay Smith, Imperial; G. A. Morehouse, J. F. Premer, Benkelman; L. S. McNeill, Campbell; Hal C. Smith, Franklin; O. P. Rosenau, Eustis; C. D. Evans. Oxford; C. C. Lull, Beaver City; C. Minnick, Cambridge; K. C. McGrew, Orleans; H. S. Andrews, Minden; F. W. Brewster, D. W. Jones, H. A. McConahay. T. A. Peterson, W. M. Reiner, Holdrege; J. M. Willis, McCook; W. K. Bennett, Red Cloud.

COUNCILOR DISTRICT NO. 11

W. G. Seng, Oshkosh; F. V. Vesely, Lewellen; E. A. Harvey, John D. McFee, S. M. Weyer, Ogallala; C. F. Heider, J. B. Redfield, Dr. Takenaga, North Platte; F. M. Bell, Grant.

COUNCILOR DISTRICT NO. 12

James Kennedy, J. Kuncl. Jr.. R. J. Morgan, O. L. Seng, C. N. Sorensen, E. I. Whitehead. Alliance; C. B. Dorwart, B. H. Grimm. R. E. Roche, Sidney; E. G. Deflon, A. J. Griot, Chadron: T. L. Doher, Bayard.

SCOTTSBLUFF and GERING—Ellis E. Baker. Paul Q. Baker, C. L. Frank. W. M. Gentry, J. T. Hanna, W. C. Harvey, Wm. E. Holmes, L. E. Hudgel, F. W. Plehn, N. H. Rasmussen, Ted E. Riddell, J. B. Schrock. S. P. Wiley.

M. C. Johnson. Kenneth Ohme, C. R. Watson. Mitchell.

"ILLEGITIMATE"

Each year about one hundred thousand children are registered as born out of wedlock and are made miserable by man's inhumanity to man. Quite a large number of these births are not registered. But at the least they are 2.5% of the births in Nebraska.

Even before birth, the community strikes out to hurt the child of unmarried parents. Scorn directed at the unwed pregnant girl often includes the immediate members of her family and extends to her more remote relatives. They are subjected to the embarrassed look or social ostracism of the neighbors and fair-weather friends. The ridicule the mother may receive can undermine her love for the child, if it is not completely destroyed then and there, even before the child is born.

The largest age group of the mothers are girls from eighteen to twenty. Many are still children themselves attending school and in the midst of all the conflicts that adolescence brings. Environment once again plays an important part. Most of these mothers have grown up in homes that gave them little love or security. They have not had normal opportunities for wholesome interests, education or recreation.

Almost the first problem the unwed mother encounters is the birth certificate of her child. How can she protect her child? How shall the record be completed? Knowing that birth certificates are required as proof of age, citizenship, for school registration, employment, and insurance, the mother foresees with fear and abhorrence what this piece of paper will mean to her baby.

Too many children learn of the illegitimacy of their parents from some outside source and have their security shattered. Birth records do even more damage in states where they are available to public inspection and for commercial purposes. Nevertheless, only a few states have changed their laws and are issuing a simplified form of certified copies of birth certificates. These forms make no reference to illegitimacy or parentage and list only essential facts: name, place of birth, sex, date of birth, and the filing date of the certificate.

The short form of birth certificate lists all the information needed for proof of age, for school registration, employment and a number of other purposes where parentage is of no concern. If a child is known by the certain name which is shown on this form the names of his parents should not alter his eligibility.

In the State of Nebraska when the parents of a child have married after its birth, a new certificate of birth may be issued in the new name of the child. Nebraska's statutes also provide for the issuance of an adoptive birth certificate in the name of the adoptive parents for any child adopted in Nebraska or who was born in Nebraska and adopted in another state, if the court is petitioned to that effect. On these certificates the data listed regarding the parents pertains to the adoptive parents of the child.

An illegitimate mother needing financial assistance may find it difficult to obtain it for her child either from the father through court action or through State Assistance. A married mother who has been deserted by her husband can take it for granted that the courts will require these men to provide reasonable support for their children. Most courts have held, however, that in the absence of a specific law a father has no duty to support an illegitimate child.

In some cities the Department of Welfare pays more than twice as much to place a dependent child in a foster home than the average order against a father for support of a child born out of wedlock. In certain states the laws limit the amount of a father's support to ludicrously low amounts. The mother must either carry the financial burden alone or count on private charity or on public welfare.

Since an unmarried mother has such a difficult time obtaining financial aid for her child she may be forced to abandon him, permit adoption, place him in an institution, or with strangers rather than giving him the care she feels he needs.

Don't you believe something should be done to give a child born out of wedlock the equality on which we base our democracy—that all men are created equal? It would seem that with laws which would provide for their care, and the setting aside of prejudice and scorn, such a child would stand a far better chance than he has today. Can the United States afford to disregard and ignore the large number of the children of unmarried parents who could mature into the valuable respected citizens of tomorrow? All mothers can answer that question.

C. L. CHISM, Director,
Division of Vital Statistics,
Nebraska State Health Dept.

SOCIETIES

Secretaries of county and district societies are requested to send in the minutes of their meetings to The Editor, Mezzanine No. 3, Medical Arts Building, Omaha.

The Adams County Medical Society and Auxiliary met at the Hastings State Hospital at 6 p.m. Wednesday, October 1 for their regular monthly dinner meeting.

Following the dinner the doctors heard Dr. J. G. Clothier, representative of the office of the state health department in Lincoln report on the current statewide survey being conducted on tuberculosis.

Dr. J. P. Feese, society president, presided.

The Auxiliary met in a separate business session with Mrs. G. Paul Charlton, president, presiding.

Dr. Harvey L. Clark, Jr., was the guest speaker at a dinner meeting of the **Garden, Keith and Perkins Counties Medical Society** held September 11, at the Duchess Hotel in Ogallala. Dr. Clarke chose as his topic, "Spinal Fractures."

The Joint Saline-Fillmore County Medical Society resumed their monthly meeting Thursday, September 25. A dinner was served at the Harrington Cafe at Fairmont followed by a business meeting. Drs. Leo Heywood and Harry McCarthy of Omaha were guest speakers.

Dr. Leo Anderson, Omaha, was guest speaker before the **Five County Medical Society** in Wayne in September. His subject was "Surgical Treatment of Diseases of the Chest."

DEATHS

Robert Earl Morris, born in Illinois in 1915. Moved to Lincoln with his parents in early childhood; attended Lincoln high school, the University of Nebrasa and graduated from the University of Nebraska College of Medicine in 1941. He served his internship in Bryan Memorial Hospital, and later became associated with Dr. J. J. Loomis of Lincoln. In 1945 he accepted a fellowship in surgery at the Mayo Foundation in Rochester, but was forced to discontinue his work because of illness. In May, 1947, he became associated with the Mineral Springs sanatorium at Connon Falls, Minn. He died in Rochester, September 25, 1947. Surviving are his wife, his parents and two children.

Albert John Molzahn, Wood River. Born in Fremont in 1885; graduated from George Washington University, Washington, D.C., in 1911. After serving his internship in Washington he joined the Medical Corps of the United States Army in 1917 with the rank of Captain. Following discharge from the army he located at Hot Springs, S. D., and later moved to Hay Springs. Prior to locating in Wood River he practiced in Benedict. Dr. Molzahn was a member of the Nebraska State Medical Association, the A.M.A., the American Legion, and Lyons Club. He was also active in church affairs. He died September 29, 1947 in Grand Island. Surviving are his wife, two sons and two daughters.

Oliver McEuen, Hemingford. Born in Missouri in 1866. Graduated from the St. Louis College of Physicians and Surgeons in 1889. He practiced in Missouri until 1910 when he located in Hemingford where he remained in practice until shortly before his death September 8, 1947. Dr. McEuen was one of the pioneer physicians in this state, serving the territory by horse and buggy in the summer and by sled in winter. Surviving are his wife and one brother.

Howard Wilbur Granden. Born in Omaha in 1895. Graduated from the University of Nebraska Medical College in 1936. He located in Verdigre, then moved to Fullerton where he remained until his death on September 12, 1947. Dr. Granden was a veteran of World War I, a member of the Presbyterian church, American Legion, Masonic Lodge and the Lions Club. Surviving are his wife, his mother and one son.

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HUMAN INTEREST TALES

Communications bearing human appeal are solicited. They should be addressed to The Editor, Nebraska State Medical Journal, Mezzanine No. 3, Medical Arts Building, Omaha.

Dr. Herman F. Johnson, Omaha, vacationed in Colorado in September.

Dr. Bertha M. Thomson is closing her office in Peru to move to Lincoln.

Dr. A. B. Fellers, Palisade, recently returned from a three weeks' vacation in old Mexico.

Dr. G. L. Sandritter was guest speaker before the I. T. Club of Norfolk in September.

Dr. Fay Smith, Imperial, attended a medical meeting in Chicago the latter part of September.

Dr. Stuart P. Wiley, Gering, was elected president of the Twin City Cosmopolitan Club recently.

Dr. Frank Tanner, Lincoln, attended the scientific sessions of the alumni association of the Mayo Foundation in October.

Dr. Paul M. Scott, Auburn, took a week's postgraduate course in eye at the University of Illinois Medical School, in October.

Dr. C. F. Ferciot, Lincoln, was a speaker at the 33rd meeting of the Rock Island Lines Surgical Association, Des Moines, in October.

Dr. Fred Long has resigned from the State Health Department to become City-County Health Director for Lincoln and Lancaster County.

Dr. R. Allyn Moser, Omaha, attended the sixty-fifth annual American Ornithologists' Union session held in Toronto, Canada, in September.

Dr. W. Howard Heine, Fremont, was elected president of the Nebraska Izaak Walton League at the state's annual convention held in September.

Dr. A. J. Offerman was chairman of the reciprocity committee at the American Medical Care Plans national conference in St. Louis in September.

Dr. Harry Jakeman, Fremont, attended the meeting of the American College of Surgeons in New York City in October. The doctor was made a Fellow of the College.

Dr. Robert Wigton, Omaha, addressed an open meeting of the Omaha Youth Guidance Council in October. His subject was "Some Emotional Aspects of Home, School and Job Adjustments."

Dr. J. Harold Lynch, Fairbury, and Dr. Ted E. Riddell, Scottsbluff, attended the annual meeting of the International College of Surgeons in Chicago in September. Both were made Fellows of this group.

Dr. E. L. MacQuiddy, Omaha, has been requested by the Committee on Scientific Exhibits of the AMA to repeat his exhibit on "Absorbable Powder Tissue Reactions and Physical Properties" at the Cleveland meeting of the AMA, January 5 to 8, 1948. Dr. MacQuiddy first exhibited this powder at the scientific exhibits during the annual sessions in Atlantic City last summer.

NEW LOCATIONS

Dr. R. L. Spradling announced the opening of his office in Bridgeport.

Dr. Herbert D. Kuper has moved from Leigh to Columbus.

Dr. Vincent S. Lynn has opened an office in Geneva.

Dr. E. H. Reeves has opened an office in Arnold.

Dr. Charles L. Swift, who formerly practiced at Marten, S. D., has located in Hebron.

Dr. John Batty has joined the staff of the McCook Clinic.

Dr. Kent Boughn will do general practice.in Walthill.

Dr. R. C. Fenstermacher has located in Auburn. He has been practicing the past year in Stanton, Iowa.

Tuberculosis Abstracts

The mounting toll of heart diseases and cancer, which are primarily disorders of middle and late life, tends to foster too much complacency over the continuing reduction in the death rate due to tuberculosis. It is well to be reminded that death figures tell but one side of the story. To look behind mortality statistics and to consider their real meaning in terms of lives saved or ended prematurely is a salutary corrective to unwarranted optimism regarding tuberculosis.

TUBERCULOSIS DEATH RATE FAILS TO TELL THE ENTIRE STORY

The best available single index as to the status of tuberculosis control is and always has been the mortality rate from this disease. The success of the tuberculosis program is best measured by the steady decline in the death rate during the past several decades. It is an impressive fact that tuberculosis mortality in the country as a whole has declined 53 per cent between 1924 and 1944.

The drop in tuberculosis mortality varies widely in the sex and color groups. The greatest decline in the past 20 years, for example, has been registered in the death rate for white women among whom the drop was 67 per cent; among non-white men, on the other hand, tuberculosis mortality declined but 42 percent during the same period. (According to the last Federal Census, 99.4 per cent of all non-whites in the United States were Negroes; hence the two groups are almost identical).

Table 1 shows for each sex and color group the tuberculosis death rates in the past two decades, as well as the percentage decline in mortality.

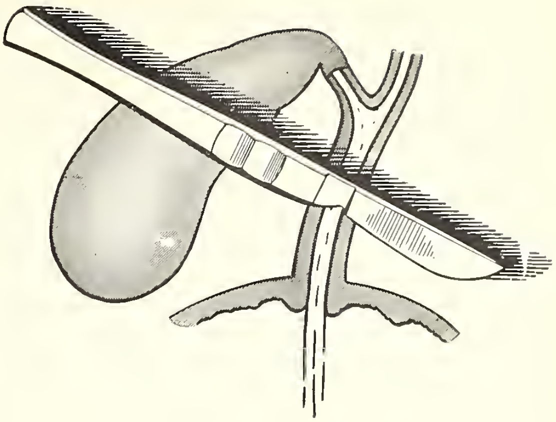
Sex and Color	T.B. Death Rate			Percentage Decline in T. B. Death Rate	
	1944	1934	1924	1924-44	1934-44
All Groups	41.3	56.7	87.9	53.0	27.2
White	33.7	46.2	74.9	55.0	27.1
Male	45.0	52.7	79.3	43.3	14.6
Female	23.3	39.6	70.4	66.9	41.2
Non-White	106.2	148.8	218.6	51.4	28.6
Male	122.7	156.9	215.0	42.1	21.8
Female	91.3	140.8	222.3	59.8	35.2

For no major cause of death has a mortality decline been recorded which compares favorably with the drop in the tuberculosis death rate. On the contrary, mortality from heart diseases, cancer, and certain other leading causes has increased rather steadily while that from tuberculosis has been dropping continuously.

Table 2 gives the 1944 death rates from these three major causes for each sex and color group.

These death rates, though admittedly correct, tend to be misleading as to the relative importance of

(Continued on p. xxiv)



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*Goldthwait, J. E., Brown, L. Y., Swaim, L. T., and Kuhns, J. G., *Body Mechanics in Health and Disease,* 103-105, J. B. Lippincott Co., Philadelphia, 1937.

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TUBERCULOSIS ABSTRACTS

(Continued from p. xxiii)

these three diseases. More of those who die of heart diseases and of cancer are elderly than is the case with those who die of tuberculosis. Moreover, tuberculosis is not only communicable but is preventable to an extent greater than either heart diseases or cancer.

Death Rate per 100,000 Population in 1944

Sex and Color	Heart Diseases	Cancer	Tuberculosis
All Groups	315.4	129.1	41.3
White	310.1	128.8	33.7
Male	398.6	135.5	45.0
Female	254.2	133.3	23.3
Non-White	239.0	81.9	106.2
Male	274.3	75.6	122.7
Female	220.6	92.2	91.3

A computation made to show the potential loss in years of life resulting from deaths from heart diseases, cancer, and tuberculosis in 1944 demonstrates vividly the seriousness of the disease which too often leads to prolonged illness and death in youth or middle age. This computation is based on the expectation of life at birth, as published by the Metropolitan Life Insurance Company in its Statistical Bulletin for May, 1946.

Separate analyses have been made for white and non-white men and women since these groups vary widely not only as to their expectation of life, but in the age distribution of deaths from certain causes.

The method used in this computation is simple indeed. For example, the average white woman may expect to live 69 years. If she dies at the age of 24 from tuberculosis, she has lost 45 potential years of life, whereas if she dies at 62 of heart disease, she has lost but seven potential years.

In the aggregate 1,929,953 potential years of life were lost by all Americans who died of heart diseases in 1944, compared with 1,287,245 potential years lost by those who died of cancer and 1,175,500 by those who died of tuberculosis in that year. In other words, because of the differences in the ages of those who died from these diseases, the potential loss in years of life occasioned by deaths from tuberculosis is within ten per cent of the loss caused by cancer, even though the tuberculosis death rate is but 32 per cent of the cancer death rate.

In spite of the fact that the mortality from heart diseases is seven and one-half times as high as that from tuberculosis, the potential years of life lost by those who died of heart diseases in 1944 were less than twice as numerous as the years lost by those who died of tuberculosis in the same year.

For many years the steadily declining tuberculosis death rate has been emphasized as the most significant evaluation of tuberculosis control. Less importance has been attached to a secondary result, namely, that not only are those who die of tuberculosis fewer in number each year but the median age at death becomes somewhat higher. These two encouraging developments have led some persons to the erroneous conclusion that tuberculosis is no longer a serious problem in this country. Yet, in spite of the declining death rate and the advance in the median age at death from tuberculosis, deaths from tuberculosis occur at much younger ages even today than do deaths from heart diseases and cancer.

It is clear from these findings that tuberculosis still constitutes one of our most serious social problems because of the comparative youth of the patients and decedents. Since all cases of tuberculosis

(Continued on p. xxviii)

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TUBERCULOSIS ABSTRACTS

(Continued from p. xxiv)

are preventable, the disease also presents a more acute public health problem than do other major causes of death. Tuberculosis is unquestionably the most serious public health problem among non-white races; moreover, the gravity of this disease among white men has never been given proper consideration.

—Decline in Tuberculosis Death Rate Fails to Tell the Entire Story, Mary Dempsey, The American Review of Tuberculosis, August, 1947.

BOOK RECEIVED

Practical X-ray Treatment, Arthur W. Erskine, M.D. Third Edition. Revised and enlarged. 155 pages, including index. The Bruce Publishing Company, St. Paul and Minneapolis. 1947.

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The Nebraska State Medical Journal

ESTABLISHED 1916 BY THE NEBRASKA STATE MEDICAL ASSOCIATION

Vol. 32 Norfolk, Nebraska, December, 1947 No. 12

EDITORIAL

HONOR WHERE HONOR IS DUE

In honoring our colleagues who rendered such distinguished service in the last World War, the Journal is honoring not only itself but the Medical Profession as a whole. Many of the men who volunteered for service in the armed forces gave up their homes and practices in order to help save our democratic institutions. That they distinguished themselves in their duties wherever they served is now a matter of history. No other branch of the armed forces was more important nor rendered greater contributions to our ultimate victory. The American troops, it is conceded everywhere, received the best medical care in the world.

Our colleagues made many sacrifices and many of them were exposed to physical danger from injury and death. All of them served at a great cost to themselves and their families. In this season of thanksgiving what greater thanks can we offer than that our colleagues have returned to take up their old places and render service in a more useful cause than destruction of life and property. For the few who have not returned the Journal grieves along with their families.

We likewise commemorate the casualties on our civilian front, which include those who laid their lives down carrying the domestic burdens of those whose places they had to fill. In bestowing honor on those who served on our military fronts, we cannot forget the trials and tribulations of those who remained at home in order that the families of our service men might be cared for. They too, let us remember, have done an almost unbelievable job, under sacrifice. Indeed, the casualties among physicians were greater on the home front than among those on military duty.

Our prayer now is that our country may be as victorious in establishing the peace as it did in fighting the war.

GREETINGS TO THE PHYSICIANS OF NEBRASKA WHO SERVED THEIR NATION DURING WORLD WAR II

As President of the American Medical Association, I am grateful for the high honor of extending to you, fellow members of the medical profession, this cordial word of greeting in behalf of the 133,000 members of our Association. It is a mark of distinction that the Nebraska State Medical Journal should dedicate the December issue to you. You have won the gratitude, not only of all Nebraskans, but you have earned the devotion and respect of men and women wherever the cause of freedom is known.

In the service of your country, you have had experiences that equip you admirably to exert a dominant influence in your various communities that will protect the profession which is your life work. The ideals of democracy and the ideals of American medicine are very ultimately related. A more healthy population, governed by the principles of the democratic way of life, is the surest means to an enlightened social order.

May I salute you, and wish you prosperity and happiness, and useful service for many years to come.

Yours,

EDWARD L. BORTZ, M.D.

It is a great pleasure to be able to extend my cordial greetings to the Nebraska physicians who served in the Army at home and overseas in World War II.

I should like to be able to thank each of you personally for the part you played in making the outstanding and enviable record of American medicine during the war period.

I hope that you will follow, with continued interest and help, the progress which the Medical Department of the Army must and will continue to make in the future.

With every best wish.

Sincerely,

R. W. BLISS, Major General,
The Surgeon General,
United States Army.

The medical officers of our Navy accomplished wonders during World War II. In no other war was there so great a percentage of recoveries of the wounded. Approximately 98 per cent of the wounded recovered. This was due to several things, but the outstanding reasons were:

(a) The skill and training of our medical men, a direct tribute to our medical schools and indirectly to the fact that the medical treatment began right in the very forward combat zones.

(b) The use of new drugs, new techniques, and the rapid evacuation of patients to hospitals in the United States were other important factors.

Many of our medical officers were from Nebraska. I would like to express my special appreciation, through the Nebraska State Medical Journal, for a task well done by the medical men from the Cornhusker State. Also, I feel that we should not forget the medical men who had to remain at home and who cared for the civilian population during the very trying days of the war.

C. A. SWANSON,
Rear Admiral, (MC),
Surgeon General, U. S. Navy.

I feel delighted and honored with the opportunity to send a few words of greeting to the physicians who have been in the recent World War.

Nothing in my whole life has given me greater satisfaction than the response to the need for doctors in the services during the war. It was a tremendous undertaking and when you realize that a total of sixty thousand doctors were supplied to the armed forces, it speaks very well indeed for the medical profession.

The aim of the Procurement and Assignment Service was to provide an adequate number of doctors for the services and to retain an adequate number for the civilians. The distribution of sixty thousand doctors for twelve million men in the services and eighty thousand doctors for one hundred and twenty million people in civilian life was a problem of tremendous scope.

I think that the medical profession made one of the best contributions, if not the best of any group of people in the war—one of which I am sure we can be extremely proud.

As Chairman of the Procurement and Assignment Service, I have greatly appreciated the readiness of the men to serve, their willingness to often accept irksome jobs, and to realize that even though mistakes were made, the emergency was great, and the time short.

I express my sincere thanks to all of the men who participated in the Procurement and Assignment Program. Without their aid it could never have been done.

Sincerely yours,

FRANK H. LAHEY, M.D.

WE KEPT THE FAITH

Tabulation of the questionnaire survey by the Medical Preparedness Committee in 1940, revealed that more than 90% of the physicians in Nebraska expressed a willingness to serve their country in the event of war. Then came Pearl Harbor. Prior to this holocaust, some of the Reserve Officers were being called to active duty and a recruiting program for medical officers was getting well under way.

October 30, 1941, more than a month before the declaration of war, the President, by executive order, set up a system providing for the orderly withdrawal of physicians from civilian life to be commissioned as medical officers in the Armed Forces.

This plan had been evolved by members of the medical profession, and was known as the Procurement and Assignment Service. The term was truly a misnomer. The Service was without authority to either procure or assign. However, this authority was not needed. The ready response of our doctors, when informed that according to the plan their number was up, was most gratifying. While there may have been some misgiving in the minds of a few, as to the method of selection in the early days, this was due almost wholly to lack of complete understanding of the plan. The promptness with which Nebraska's quota was filled and the personal thanks received by members of the Procurement and Assignment Committee from many of those who were called, testify to the worthwhile job that was done. Many of our doctors served with distinction in various theaters, and all distinguished themselves in a manner befitting a noble profession.

ROY W. FOUTS, M.D.,
Former Chairman Procurement
and Assignment Service,
7th Service Command.

THE NEW FEE SCHEDULE

On page 480 we publish a report from the Planning Committee of the Nebraska State Medical Association, submitted by Dr. Floyd L. Rogers. It is our understanding that fee schedules have reached our members or will soon be coming through. We do not suppose that the fee schedules arrived at will please all physicians. We are certain, however, that the Committee has done its best to reach a fair and equitable system of fees with the agencies involved and therefore deserve acceptance by our members.

It should be remembered that the arrival at any fee schedule for medical and surgical service is one of the most difficult tasks that the Committee has had. Many hours, indeed many months, have been spent in working out this schedule. We suggest therefore that those of us who are inclined to be critical stop to consider that the Committee has done its best, and that is all that anyone can do.

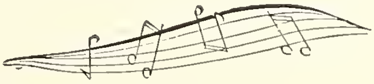
We congratulate Dr. Rogers and his group on the efforts and also on the completion of this most complicated and most laborious task.

ANNOUNCEMENT

LAST CALL FOR PAPERS

According to Dr. R. B. Adams, the program for the Nebraska State Medical Association Assembly will close January 1, 1948. The meeting will be held in Lincoln the first week in May. If you wish to read a paper please send your title to Dr. Adams, 416 Federal Securities Bldg., Lincoln, immediately.

WE WISH TO EXPRESS TO OUR READERS OUR BEST WISHES FOR THE CHRISTMAS SEASON



In this issue the Journal salutes the men who served in the Armed Forces of the United States of America in World War II. We tried our best to include all of our Nebraska physicians. There are undoubtedly others in the state who, in spite of our pleas to send the data, have failed to do so.

LAWRENCE L. ANDERSON

Omaha, Nebr.

Born in Omaha, Sept. 7, 1911. Graduated from University of Nebraska College of Medicine, 1936. Internships and Residencies: Columbia Hospital, Milwaukee, Wis., 1936-1938; General Surgery, Lutheran Deaconess, Chicago, 1938-1939; General Surgery, Children's Hospital, Milwaukee, 1939-1940; Plastic Surgery, Wisconsin General, Madison, 1940-1942. Date of enlistment: June 8, 1942. Rank: First Lieutenant. First assignment: Army Air Corps, Station Hospital, Fort George Wright, Washington; Ward Surgeon - General Surgery. Subsequent major assignments: 5th Auxiliary Surgical Group, Maxillo-facial and Plastic Surgery, Team Chief. Theatres of operations: E.T.O., England, France, Luxemburg, Belgium, Holland and Germany. Citations, Decorations: 9th Army Unit Citation, Four E.T.O. campaign stars. Discharged on Feb. 12, 1946, with rank of Lieutenant Colonel. Re-entered practice in April, 1946, in Omaha.

EDWARD V. AVAKIAN

Emerson, Nebr.

Born in Champaign, Ill., August 8, 1909. Graduated from University of California Medical School, 1936. Internships: Los Angeles County Hospital, 1935-1936. Resident in Medicine: Queen's Hospital, Honolulu, Hawaii, 1939-1940. Date of enlistment: October 15, 1940. Rank: Captain. First assignment: Battalion Surgeon, Med. Det., 299 Inf. Regt. Subsequent major assignments: C. O., Clearing Co., 24th Medical Batt., 24th Inf. Div.; Regimental Surgeon, 21st Inf. Regt., 24th Inf. Div.; Regimental Surgeon, 300th Inf. Regt., 2nd Army; Battalion C. O., Primary Reconditioning Div., Welsh Convalescent Hospital; Assistant Chief, Primary Reconditioning, Welsh Convalescent Hospital. Theatres of operations: S. W. Pacific (Terr. Hawaii, Australia, New Guinea). Citations, Decorations: American Defense Ribbon, one bronze star, Pearl Harbor; Southwest Pacific Ribbon, one bronze star, Hollandia Operation. Discharged on February 23, 1946, with rank of Lieutenant Colonel. Re-entered practice in February, 1946, in Monrovia, Calif.; May, 1946, in Emerson, Nebr.

JOHN A. AITA

Omaha, Nebr.

Born in Council Bluffs, Iowa, June 20, 1914. Graduated from University of Iowa, 1937. Internships and Residencies: U. S. Marine Hospital, San Francisco, Calif., 1937-1938; Psychiatry and Mental Hygiene, Yale University School of Medicine, 1938-1940; Fellow in Neurology and Psychiatry, Mayo Clinic, 1940-1944. Date of enlistment: March 6, 1944. Rank: First Lieutenant (Army). First assignment: Medical Field Service School, Carlisle Barracks, Pa. Subsequent major assignments: Chief, Neurology and Psychiatry, Neurological-Neurosurgical Center, Mayo General Hospital, Galesburg, Illinois, April, 1944 to August, 1946; Investigative (research) Project, Surgeon General's Office, Washington, D.C., August, 1946-September, 1946; Chief, Psychiatry, Oliver General Hospital, Augusta, Ga., September, 1946 to December, 1946. Citations, Decorations: Army Commendation Ribbon and Citation. Discharged on Dec. 1, 1946, with rank of Captain. Re-entered practice December, 1946, Omaha, Nebr.

LELAND CLAYTON ALBERTSON

Omaha, Nebr.

Born in Farnsworth, Pa., May 4, 1901. Graduated from University of Nebraska College of Medicine, 1928. Internships: Jefferson Davis Hospital, Houston, Texas, 1928-1929. Post graduate training prior to enlistment: School of Tuberculosis, 1938. Date of enlistment: July 16, 1945. Rank: Lieutenant Commander, U.S.N.R. First assignment: Sampson Naval Hospital. Subsequent major assignments: U.S.S. Bountiful Hospital Ship. Theatres of operations: Asiatic Pacific - Japanese Occupation. Discharged on July 14, 1946, with rank of Lieutenant Commander. Re-entered practice July, 1946, to May, 1947, in Veterans Administration Hospital. Located in Omaha, August, 1947.

RONALD C. ANDERSON

Columbus, Nebr.

Born in Columbus, Nebr., April 20, 1908. Graduated from University of Nebraska, 1932. Internships and Residencies: University Hospital, Ohio State, 1933; Rockford (Illinois) General Hospital, 1934. Post graduate training prior to enlistment: New York Post-graduate Surgery. Date of enlistment: Dec. 23, 1940. Rank: Major. First assignment: 110th Med. Regt. Subsequent major assignments: 105th Evacuation Hospital; 5th Auxiliary Surgical Group. Theatres of operations (locale): Ninth Army, European Theatre. Discharged on Febr. 19, 1945, with rank of Colonel. Graduate training after discharge: Surgery, New York Post-Graduate. Reentered practice in February, 1945, in Columbus, Nebr.

ARTHUR WESLEY ANDERSON

Lexington, Nebr.

Born in Gothenburg, Nebr., Sept. 23, 1890. Graduated from Northwestern, 1922. Internship: Grace Hospital, Detroit, 1921-1922. Date of enlistment: July 9, 1945. Rank: Lieutenant Commander. First assignment: Naval Air Station, Hospital, Corpus Christi, Tex. Subsequent major assignments: Amphibious Training Base, Dispensary, Coronado, Calif.; Pre-commissioning Training Center, Hospital, Treasure Island, San Francisco, Calif.; U. S. Naval Hospital, San Diego, Calif. Discharged July 5, 1946, with rank of Lieutenant Commander. Graduate training after discharge: University of California. Re-entered practice Aug. 1, 1946, in Lexington, Nebr.

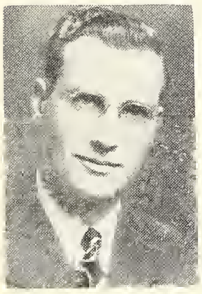
NORMAN HARRY ATTWOOD

Omaha, Nebr.

Born in Omaha, Nebr., December 23, 1885. Graduated from Creighton Medical School in 1920. Internship: Ford Hospital, Omaha, 1920 and 1921. Date of enlistment: June 21, 1941. Rank: Lieutenant Medical Corps. First assignment: 134 Infantry Nebraska National Guard. Subsequent major assignments: Battalion Surgeon Captain 134th Infantry; Regimental Surgeon, Rank of Major 134th Infantry. Theatres of operation: Camp Robinson, Arkansas. Discharged on Inactive, December 2, 1941, with rank of Major. Re-entered practice on November 30, 1941, in Omaha, Nebr.

CHARLES FERG ASHBY
Fairmont, Nebr.

Born in Fairmont, Nebr., Febr. 9, 1920. Graduated from University of Nebraska College of Medicine, 1942. Internships: Wesley Memorial Hospital, Chicago, Ill., 1942-43. Commissioned on Oct. 29, 1942. Rank: Lieutenant (j.g.), Medical Corps. First assignment: U. S. Naval Medical School, U. S. Naval Hospital, Bethesda, Md. Subsequent major assignments: USS Twining (DD540); U. S. Naval Hospital, Great Lakes, Ill.; Naval Recruiting Station, Milwaukee, Wis.; District Headquarters Recruiting Station, U. S. Marine Corps, Milwaukee, Wis.; U. S. Naval Ammunition Depot, Hastings, Nebr. Theatres of operations: Asiatic-Pacific: Occupation of Saipan; Battle of Philippine Sea; Capture and Occupation of Tinian; Support of Palau Invasion; Initial Raids on Luzon; Support of Leyte Invasion; Cape Enango Engagement of the Battle of Leyte Gulf; Initial Raids and Subsequent Raids on Okinawa and Formosa; Support of Luzon Invasion; The China Sea Sortie of the Third Fleet with Raids on Indo-China, and the China Coast, Formosa and Okinawa; Raids on Tokyo; Support of Iwo Jima Occupation; Invasion of Okinawa; Support of Engagement off Western Kyushu; Raids on Kyushu; Third Fleet Raids and Shore Bombardment of Japanese Home Islands; Occupation of Japan. Citations, decorations: Asiatic-Pacific Ribbon, 7 Battle Stars; American Theatre Ribbon; World War II Victory Medal; Philippine Liberation, 2 Battle Stars. Discharged on May 26, 1947, with rank of Lieutenant, Medical Corps, USNR. Re-entered practice on May 26, 1947, Fairmont, Nebr.

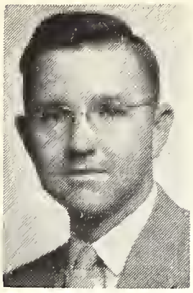


GEORGE THOMAS ALLIBAND
Omaha, Nebr.

Born in Elliott, Iowa, Aug. 31, 1912. Graduated from University of Nebraska College of Medicine, 1936. Internships and Residencies: University Hospital, University of Nebraska, 1936; Illinois Eye and Ear Infirmary, Chicago, Ill., 1941. Date of enlistment: Nov. 15, 1942. Rank: Lieutenant (j.g.), Medical Corps, USNR. First assignment: Farragut Naval Hospital, Farragut, Ida. Subsequent major assignments: U. S. Naval Air Station, Corpus Christi, Tex.; U. S. Naval Technical Training Center, Ward Island, Corpus Christi, Tex. Discharged on April 9, 1946, with rank of Lieutenant Commander, Medical Corps, U.S.N.R. Re-entered practice on May 1, 1946, in Opthalmology, Omaha, Nebr.

LESTER L. ARNTSEN
Omaha, Nebr.

Born in Platte, S. D., July 2, 1905. Graduated from Northwestern University Medical School, 1930. Internships: U. S. Naval Hospital, Mare Island, Calif., 1929-30. Date of enlistment: No. 29, 1942. Rank: Lieutenant Commander MC-VS USNR. First assignment: Navy Yard Dispensary, Washington, D. C. Subsequent major assignments: Senior Medical Officer, 78th Construction Battalion, Dec., 1942-Dec. 1943; Regimental Medical Officer, 17th Construction Regiment, Dec., 1943 to May 25, 1944; Surgical Staff, Fleet Hospital 107, May 25, 1944 to Feb., 1945; Medical Executive Officer Receiving Station, Norfolk, Va., March, 1945 to Nov., 1945. Theatres of operations: Caledonia, June, 1943 to Nov., 1943; New Guinea, Nov., 1943 to Feb., 1944; Admiralty Islands, Feb., 1944 to May, 1944; Caledonia, May, 1944 to Feb., 1945. Discharged on Nov. 25, 1945, with rank of Commander M. C., USNR. Re-entered practice in Omaha April 15, 1946.



JAMES B. BLAIR
Omaha, Nebr.

Born in Broken Bow, Nebr., June 25, 1914. Graduated from University of Nebraska College of Medicine, 1939. Internships and Residencies: University Hospital, Omaha, Nebr., 1939-40; University Hospital, Minneapolis, Minn., 1940-41. Date of enlistment: May 28, 1942. Rank: First Lieutenant. First assignment: 89th Infantry Division, Camp Carson, Colo. Subsequent major assignments: 66th Infantry Division, Camp Blanding, Fla.; 130th Evacuation Hospital, Fort Jackson, So. Carolina. Theatre of operations: Europe. Discharged on March 1, 1946, with rank of Major. Graduate training after discharge: University of Minnesota; Preceptorship—Oct. 15, 1941; Post-graduate study—University of Nebraska College of Medicine, Oct., 1946 to date.

WILBUR KEITH BENNETT
Red Cloud, Nebr.

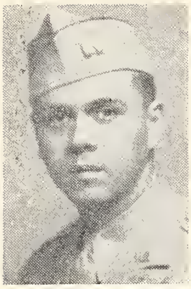
Born in Riverton, Nebr., April 3, 1913. Graduated from University of Nebraska College of Medicine, 1942. Internships: USPHS, Norfolk, Va., 1942-43. Date of enlistment: Nov. 23, 1941. Rank: Ensign. First assignment: U. S. Marine Hospital, Norfolk, Va. Subsequent major assignments: Junior Medical Officer, USS General W. P. Richardson, AP 118; Senior Medical Officer, Cape Hatteras, N. C., District Officer 5th Naval District; Senior Medical Officer, USS General W. P. Richardson, AP 118. Theatres of operations: American, African, European. Discharged on April 11, 1946, with rank of Lieutenant Senior Grade. Re-entered practice on Nov. 11, 1946, in Red Cloud, Nebr.

R. RUSSELL BEST
Omaha, Nebr.

Born in Omaha, Nebr., August 24, 1897. Graduated from Harvard Medical School, 1922. Internships and residencies: Lakeside Hospital, 1922-23; Surgical Assistant, 1923-28. Post graduate training prior to enlistment: (Surgical assistant and research) Germany, Austria and England 2 years, 1929-30. Date of enlistment: Sept. 21, 1942. Rank: Major. First assignment: 3rd Auxiliary Surgical Group — Chief of General Surgical Team. Subsequent major assignments: Consultant in General Surgery, Mediterranean Base Section; Chief of Surgical Service, 7th Station Hospital, and temporary assignments as Chief of Surgical Service to other hospitals in Africa and Italy; Chief of Surgical Service, Carson General Hospital, Colorado Springs, Colorado. Theatres of operations: North Africa and Italy. Citations, decorations: Legion of Merit, 1945—For services in North Italy in the care of the Brazilian casualties and organization of Brazilian medical personnel in U. S. Army Hospitals. Discharged on December 6, 1945, with rank of Lieutenant Colonel. Re-entered practice on October 15, 1945, in Omaha, Nebr.

CHRIS BITNER
Sidney, Nebr.

Born in Loup City, Nebr., Nov. 19, 1916. Graduated from University of Nebraska, 1938. Internship: University of Indiana, 1938-39. Date of enlistment: March 29, 1942. Rank: Lieutenant (JG). First assignment: Recruiting Office, Oklahoma City. Subsequent major assignments: U.S.S. Laramie; Naval Hospital, Bethesda, Md.; Dispensary, Port Hueneme, Calif. Theatres of operations: North Atlantic. Discharged on Jan. 12, 1946, with rank of Lieutenant Commander. Re-entered practice on Febr. 15, 1946, in Sidney, Nebr.



FRANK R. BARTA
Omaha, Nebr.

Born in Omaha, Nov. 3, 1913. Graduated from Johns Hopkins, 1939. Internships and Residencies: Harper Hospital, Detroit, 1939-40; Psychiatry—New Haven Hospital, 1940-43; Neurology — University of Chicago Clinics, 1940-43. Post graduate training prior to enlistment: Yale and University of Chicago Medical Schools, 1940-43. Date of enlistment: August 24, 1943. Rank: First Lieutenant. First assignment: Director, Mental Hygiene Unit, A.A.R.T.C. Subsequent major assignments: Held same assignment for entire period of military service, though training center moved from Camp Callan, Calif., to Fort Bliss, Texas, in 1944. Discharged on May 24, 1946, with rank of Major. Entered practice on April 15, 1946, in Omaha, Nebr.

CLAYTON E. BUHL
Pender, Nebr.

Born in Lindsay, Nebr., Sept. 30, 1912. Graduated from University of Nebraska, 1937. Internship: University Hospital, Omaha, 1937-38. Date of enlistment: Nov. 1, 1940. Rank: First Lieutenant. First assignment: Jefferson Bararcks Station Hospital. Subsequent major assignments: 31st M.T.B., Camp Grant, Ill.; Surgeon, Station Hospital, Napier Field, Alabama; Group Surgeon, 305th Air Service Group, Ondal, India. Theatres of operations: China, Burma, India. Citations, decorations: Bronze Star for work on Amebiasis. Discharged on April 21, 1946, with rank of Lieutenant Colonel. Graduate training after discharge: Refresher course, University Hospital, Feb., 1947. Re-entered practice on June 27, 1946, in Pender, Nebr.

CLARENCE F. BANTIN
Omaha, Nebr.

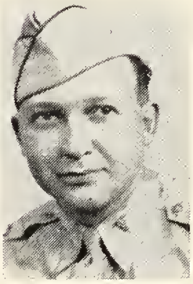
Born in Omaha, Nebr., Dec. 3, 1900. Graduated from University of Nebraska, 1924. Internship: University of Nebraska, 1924-25. Date of enlistment: Sept. 6, 1943. Rank: Captain. Assignment: William Beaumont General Hospital, El Paso, Tex., where he remained throughout the period of his military service. Citations, decorations: Presidential Unit Citation. Discharged on April 24, 1946, with rank of Major. Re-entered practice on March 18, 1946, in Omaha.

DONALD EDWIN BURDICK
David City, Nebr.

Born in David City, Nebr., Sept. 1, 1902. Graduated from University of Nebraska, 1927. Internship: Allegheny General Hospital, Pittsburgh, Pa., 1927-28. Date of enlistment: Oct. 1, 1943. Rank: Lieutenant Commander. First assignment: Naval Training Station, San Diego, Calif. Subsequent major assignments: U.S.S. Zeilin (A.P.A. 3), Military Government, Okinawa. Theatres of operations: Asiatic - Pacific. Discharged on March 25, 1946, with rank of Commander. Re-entered practice on April 15, 1946, in David City, Nebr.

JAMES D. BRADLEY
(Formerly of Pender, Nebr.)

Born in Pittsburgh, Penn., Oct. 24, 1907. Graduated from Northwestern, 1935. Internships and Residencies: Cleveland City Hospital, 1934; Lakewood City Hospital, 1935. Date of enlistment: July 28, 1943. Rank: Lieutenant (MC), USNR. First assignment: U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: U. S. Naval Air Station, Pensacola, Fla.; Combat Squadron VC 87, Pacific Fleet; Headquarters Squadron 14, Fleet Air Wing 14, Pacific Fleet; CASU 47, Pacific Fleet; Fighter Group 99, Pacific Fleet; Naval Air Base, Agana, Guam, Mariannas Islands; Naval Air Base, Orote, Guam, Mariannas Islands. Theatres of operations: American, Asiatic-Pacific. Citations, decorations: American Theatre; Asiatic Pacific Theatre; Victory. Discharged on April 2, 1946, with rank of Lieutenant Commander (MC) USNR, Flight Surgeon. Graduate training after discharge: Cook County Hospital. Re-entered practice on June 1, 1946, in Omaha.



JOHN G. BRAZER
Omaha, Nebr.

Born in Sault Ste. Marie, Can., Nov. 18, 1908. Graduated from University of Michigan Medical School, July, 1935. Internship and Residencies: University Hospital, Ann Arbor, Mich., 1935 to 1939. Date of enlistment: July 15, 1942. Rank: Captain. First assignment: 3rd Field Hospital, Camp Young, Calif. Subsequent major assignments: Chief of Medical Service, 3rd Field Hospital. Theatres of operations: Pacific, Australia, New Guinea and Philippines. Citations, decorations: Bronze Star for service in North Luzon Campaign. Discharged on March 4, 1946, with rank of Lieutenant Colonel. Graduate training after discharge: Completed examinations and certification American Board of Internal Medicine, June, 1946. Re-entered practice in March, 1946, in Benson, Omaha, Nebr.

DONALD J. BUCHOLZ
Omaha, Nebr.

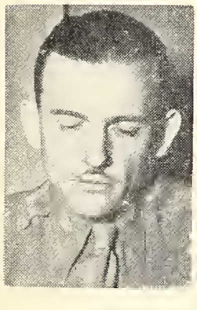
Born in Hooper, Nebr., Sept. 2, 1913. Graduated from University of Nebraska, 1939. Internships and Residencies: Peter Bent Brigham, Boston, 1939-1941. Date of enlistment: March 1, 1941. Rank: First Lieutenant. First assignment: Assistant Chief of Medicine, Station Hospital, Camp Edwards, Mass. Subsequent major assignments: Station Hospital, Camp Lee, Va.; 93rd General Hospital, ETO. Theatres of operations: ETO. Discharged on Jan. 31, 1945, with rank of Major. Entered practice in January, 1947, in Omaha, Nebr.

CLARENCE R. BROTT
Beatrice, Nebr.

Born in Jansen, Nebr., Jan. 24, 1913. Graduated from University of Nebraska, 1939. Internship and Residency: City Hospital, St. Louis, 1939-41. Date of enlistment: Jan. 30, 1941. Rank: First Lieutenant (Medical Reserve). First assignment: Ft. Leonard Wood, Mo., Station Hospital, 25 months. Subsequent major assignments: 2nd Aux. Surg. Group (32 months overseas). Theatres of operations: M.T.O.—Africa, Italy, France, Germany. Citations, decorations: Bronze Star, 7 Battle Stars. Discharged on Febr. 11, 1945, with rank of Captain. Re-entered practice on Jan. 1, 1945, in Beatrice, Nebr.

NICHOLAS E. BAILEY
Ainsworth, Nebr.

Born in Arnold, Nebr., July 20, 1912. Graduated from University of Nebraska College of Medicine, June 9, 1941. Internship: Orange County Hospital, Orange, Calif., 1941-42. Date of enlistment: June 9, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Hamilton Field, Calif., June 15, 1942. Subsequent major assignments: 69th Observation Group, Ontario airdrome, Ontario, Calif.; School of Aviation Medicine, Randolph Field, Tex.; 302nd and 382nd Heavy Bomb Group, Tucson, Ariz.; 10th Anti-submarine Squadron, Galveston, Tex.; Headquarters Squadron, Thirteenth Air Force, South Pacific; Second Emergency Rescue Squadron, 13th Air Force, South Pacific. Theatres of operations: American and South Pacific. Citations, decorations: Silver Star; Air Medal with Four Clusters; Pacific Theatre Ribbon with Seven Battle Stars. Discharged on March 2, 1946, with rank of Captain. Graduate training after discharge: Course in general orthopedics and traumatology, Dr. A. E. Steindler, College of Medical Evangelists. Re-entered practice on July 29, 1946, in Ainsworth, Nebr.



JAMES M. BROWN
Clarkson, Nebr.

Born in Albion, Nebr., Aug. 21, 1913. Graduated from University of Nebraska, 1937. Internships: St. Joseph's Hospital, Ft. Worth, Tex., 1937-38. Date of enlistment: Dec. 9, 1940. Rank: Lieutenant. First assignment: Surgeon's Office, Camp Joseph T. Robinson, Ark. Subsequent major assignments: Ashford General Hospital, W. Va.; 121st General Hospital, European Theatre; 83rd Field Hospital, European Theater; 277th General Hospital. Theatres of operations: European (England, France). Discharged on June 10, 1946, with rank of Lieutenant Colonel. Re-entered practice on July 5, 1947, in Clarkson.

EVERETT GUY BRILLHART
Columbus, Nebr.

Born in Schuyler, Nebr., Oct. 19, 1905. Graduated from University of Nebraska, 1930. Internship: St. John's Hospital, Tulsa, Okla., 1930-31. Residency: St. John's Hospital, Tulsa, Okla., 1931. Date of enlistment: March 25, 1941. Rank: First Lieutenant. First assignment: 110th Medical Regiment, 35th Division. Subsequent major assignments: C. O., Clearing Company, 35th Division; Executive Officer, 110th Medical Battalion, 35th Division. Theatres of operations: European. Citations, decorations: Bronze Star. Discharged on Oct. 20, 1945, with rank of Major. Re-entered practice on Jan. 1, 1946, in Columbus, Nebr.

R. BROWN
Beatrice, Nebr.

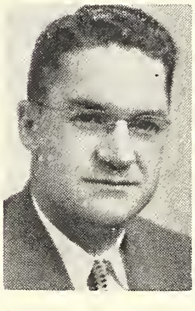
Born in Nebraska, August 9, 1914. Graduated from Duke University, 1940. Internship: Illinois Central Hospital, Chicago, 1940. Residency: Grant Hospital, Columbus, Ohio, 1941. Date of enlistment: September 18, 1942. Rank: First Lieutenant. First assignment: Pueblo Army Air Base, Pueblo, Colo. Subsequent major assignments: Davis Monthon Field, Tucson, Ariz.; Westover Field, Massachusetts; Carlyle Barracks, Pennsylvania; Edgewood Arsenal, Maryland; School of Aviation Medicine, Randolph Field, Tex. Theatres of operations: China-Burma-India Theatre; Flight Surgeon with Air Transport Command. Citations, decorations: Presidential Citation, Theatre Ribbon with two Battle Stars. Discharged on Febr. 14, 1946, with rank of Major. Re-entered practice on Febr. 1, 1946, in Beatrice, Nebr.

KENNETH WINSTON BROWN
Stratton, Nebr.

Born in Fairmont, Nebr., 1912. Graduated from University of Nebraska College of Medicine, 1940. Internships: Murray Hospital, Butte, Mont., 1940-41. Date of enlistment: Nov. 5, 1942. Rank: First Lieutenant. First assignment: Anesthetist, Camp Hale, Colo. (Nov., 1942-June, 1943). Subsequent major assignments: From June, 1943, to Oct. 1943, service with 31st General Hospital at Camp Carson, Colorado Springs, Colo., as Dermatologist. Overseas with this unit from Nov. 2, 1943 as Dermatologist at New Hebrides (Espiritu Santo). Acted as Base Consultant, Base M (Luzon) Philippines from May, 1945 to December, 1945. Dermatologist at Camp Stoneman, Calif., from January, 1946 to June, 1946. Theatres of operations: Asiatic Pacific. Citations, decorations: Asiatic Pacific Service Medal, Philippine Liberation Ribbon, American Campaign Medal, World War II Victory Medal. Discharged on Aug. 18, 1946, with rank of Captain. Re-entered practice on September, 1946, in Stratton, Nebr.

MILTON H. CARRIG
Bloomfield, Nebr.

Born in Platte County, Nebr., April 21, 1900. Graduated from Creighton University Medical School, 1924. Internships: Mercy Hospital, Chicago, Illinois, 1925-1926. Date of enlistment: April 25, 1944. Rank: Lieutenant Commander. First assignment: Naval Training Center, San Diego, Calif. Subsequent major assignments: U. S. Naval Hospital 111, Guam; Native Hospital, Guam; Headquarters Dispensary, Medical Officer in Charge, Command Marianas; Naval Operating Base, Guam. Theatres of operations: Pacific, Guam, Marianas. Citations, decorations: Commander Marianas. Discharged on April 28, 1946, with rank of Lieutenant Commander. Re-entered practice on April 29, 1946, in Bloomfield, Nebr.



PAUL T. CASH
Omaha, Nebr.

Born in Lenox, Iowa, July 11, 1911. Graduated from University of Iowa, 1935. Internships and residencies: Rotating Internship, 1935-36; Neurology and Psychiatry, 1936-40. Date of enlistment: Jan. 5, 1942. Rank: First Lieutenant. First assignment: Ft. Omaha, Nebr. Subsequent major assignments: Chief of Neuropsychiatry, Station Hospital, Ft. Des Moines, Iowa, Aug., 1942-Jan., 1944; Chief of Neuropsychiatry, U. S. Army General Hospital, Camp Carson, Colo., Jan. 1944-Aug. 1945; Chief Psychiatric Consultant, O'Reilly General Hospital, Springfield, Missouri, Oct. 1945-Jan. 1946. Theatres of operations: Zone of the Interior. Discharged on Jan. 5, 1946, with rank of Major. Re-entered practice on Jan. 15, 1946, in Omaha, Nebr.

JOSEPH J. COMINE
Omaha, Nebr.

Born in Chicago, Ill., May 26, 1906. Graduated from Creighton University, 1931. Internships: St. Catherine's Hospital, Omaha, 1931-32. Date of enlistment: July 1, 1942. Rank: First Lieutenant. First assignment: Camp Carson, Colo. Subsequent major assignments: Pueblo Ordnance, Pueblo, Colo.; Post Surgeon, Station Hospital, Greeley, Colo. Discharged on Aug. 1, 1945, with rank of Captain. Re-entered practice on Oct. 15, 1945, in Omaha, Nebr.

ORANGE VAN CALHOUN
Lincoln, Nebr.

Born in Birmingham, Iowa, Feb. 6, 1901. Graduated from Western Reserve, 1932. Internship: Lakeside Hospital, 1932-33. Post graduate training prior to enlistment: 1940-41-43. Date of enlistment: Jan. 4, 1943. Rank: Lieutenant Commander, U.S.N.R. First assignment: Cardiology, U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: Clinical Director, Out Patient Dept., 12th Naval District, San Francisco, Calif. Citations, decorations: World War II. Discharged on March 9, 1946, with rank of Commander. Re-entered practice on March 15, 1946, in Lincoln, Nebr.

W. ALLAN CAMPBELL
Lincoln, Nebr.

Born in Gallatin, Mo., Oct. 6, 1899. Graduated from University of Nebraska College of Medicine, 1922. Internships: University Hospital, Omaha; Kings County, Brooklyn, 1922-24. Called to active duty Jan. 12, 1942. Rank: Lieutenant. First assignment: Dispensary, Puget Sound Navy Yard. Subsequent major assignments: U. S. Naval Hospital, Aiea Heights, Pearl Harbor, T. H.; U. S. Naval Hospital, Oakland, Calif. Theatres of operations: Pacific, Hawaii. Discharged on Jan. 14, 1946, with rank of Commander. Re-entered practice in March, 1946, in Lincoln, Nebr.

HARVEY L. CLARKE, JR.
North Platte, Nebr.

Born in Fairbury, Nebr., Oct. 9, 1900. Graduated from University of Michigan, 1924. Internships and Residencies: Kings County Hospital, Brooklyn, N. Y., 1924 to 1927; F.A.C.S., 1942. Post graduate training prior to enlistment: Cook County and University of Minnesota. Date of enlistment: Oct. 13, 1942. Rank: Lieutenant Commander. First assignment: Orthopedic Dept., U. S. Naval Hospital, Long Beach, Calif. Subsequent major assignments: Surgical Team No. 1, 7th Amphibious Force, April, 1944; Senior Medical Officer, U. S. Naval Recruiting, Springfield, Ill., May to October, 1945. Theatres of operations: Southwest Pacific (Australia, New Guinea, Philippines). Citations, decorations: Philippines Ribbon, 1 Star; Asiatic Pacific, 3 Stars. Discharged on April 8, 1946, with rank of Commander. Re-entered practice on April 15, 1946, in North Platte, Nebr.

CHARLES MAXWELL COE
Wakefield, Nebr.

Born in Iowa, July 17, 1909. Graduated from University of Nebraska, 1936. Internships: University of Nebraska Hospital, 1936-37. Date of enlistment: May, 1943. Rank: First Lieutenant. First assignment: Baxter General Hospital, Spokane, Wash. Subsequent major assignments: 25th Evacuation Hospital, Surgical Service; 54th Evacuation Hospital, Surgical Service. Theatres of operations: South Pacific, Philippine Islands, Japan. Citations, decorations: South Pacific, Philippine Invasion, one Battle Star. Discharged on Jan. 29, 1946, with rank of Major. Re-entered practice on March 10, 1946, in Wayne, Nebr.

JAMES A. CORNISH
Norfolk, Nebr.

Born in Center, Nebr., Aug. 17, 1918. Graduated from Creighton Medical School, March 15, 1943. Internship and Residency: St. Louis City Hospital, 1943; St. Louis County Hospital, 1944. Date of enlistment: Oct. 5, 1944. Rank: Lieutenant. First assignment: Orthopedic Surgery, Fort Ord Regional Hospital. Subsequent major assignments: Chief of Orthopedic Service, 230th Station Hospital; Chief of Orthopedic Service, 148th General Hospital. Theatres of operations: Mid Pacific: Discharged Aug. 5, 1946, with rank of Captain. Re-entered practice on Sept. 1, 1946, in Norfolk, Nebr.

ROBERT C. COWGER
Grand Island, Nebr.

Born in Hastings, Nebr., Jan. 17, 1921. Graduated from University of Nebraska College of Medicine, Sept., 1944. Internships: Emanuel Hospital, Portland, Ore., 1944-45. Date of enlistment: Inactive duty—May, 1942; rank: 2nd Lieutenant MC AUS. Date of enlistment: Active duty—July, 1945; rank: Lieutenant (j.g.) MC, USNR. First assignment: U. S. Naval Hospital, Corvallis, Ore. Subsequent major assignments: USNPSC, Minneapolis, Minn.; USNH, Mare Island, Calif.; USS Catskill (LSV-1), USS Saugus (LSV-4), USNRB, San Diego, Calif. Discharged on July 9, 1946, with rank of Lieutenant (jg) MC UNR. Re-entered practice on Sept. 15, 1946, in Sutton, Nebr. Moved to Grand Island June 10, 1947. Affiliated: Grand Island Clinic.

MICHAEL CROFOOT
Omaha, Nebr.

Born in Omaha, Nebr., Sept. 6, 1911. Graduated from Harvard Medical School, 1937. Internships and residencies: Worcester City Hospital, Worcester, Mass., 1938-1940; University of Michigan, 1941; Cincinnati Children's Hospital, 1942. Date of enlistment: Aug., 1942. Rank: Lieutenant (jg) MC, USNR. First assignment: U. S. Naval Receiving Station, Bath, Maine. Subsequent major assignments: Seventh Beach Battalion, Amphibious Forces, USN; Portsmouth Naval Hospital, Portsmouth, N. H. Theatres of operations: Omaha Beach, Normandy. Citations, decorations: Army Unit Citation. Discharged April, 1946, with rank of Lieutenant Commander, MC, USNR. Entered Pediatrics practice Sept., 1946, in Omaha, Nebr.

GLENN D. CROOK
Ann Arbor, Mich.

Born in Winnetoon, Nebr., Dec. 28, 1910. Graduated from University of Nebraska, June, 1936. Internships: University of Nebraska, 1936-37. Date of enlistment: August 28, 1942. Rank: First Lieutenant. First assignment: 43rd Station Hospital. Subsequent major assignments: 36th General Hospital. Theatres of operations: Africa, Italy, France, Germany. Discharged on Dec. 28, 1945, with rank of Captain. Now serving in residency, Otolaryngology, University of Michigan.

HENRY L. DE LONG
Omaha, Nebr.

Born in St. Louis, Mo., Oct. 30, 1907. Graduated from University of Nebraska, 1938. Internships: Immanuel Hospital, Omaha, 1938-1939. Entered active duty Feb. 4, 1941. Rank: First Lieutenant. First assignment: 10th Cavalry. Subsequent major assignments: 602nd F.A. Bn. (Pack); Brooke General Hospital. Theatres of operations: European (Italy, Southern France). Citations, decorations: Commendation, Airborne Invasion of Southern France, 1944. Discharged on March 1, 1946, with rank of Captain. Re-entered practice in March, 1946, in Omaha, Nebr.

TOWNSEND E. DENT
North Platte, Nebr.

Born in North Platte, Nebr., May 3, 1901. Graduated from Creighton University College of Medicine, 1927. Internship: St. Joseph's Creighton Memorial Hospital, Omaha, 1927-28. Residency: Surg. Res., St. Joseph's Creighton Memorial Hospital, Omaha, 1928-29. Date of enlistment: May, 1942. Rank: Captain, Medical Corps. First assignment: 9th Corps Area, San Francisco, Calif. Subsequent major assignments: Camp McQuaide, Calif.; 190th General Hospital, Abiline, Tex.; Dibble General Hospital, Palo Alto, Calif. Discharged on Dec. 21, 1945, with rank of Major, Medical Corps. Re-entered practice in January, 1946, in North Platte.

LOUIS E. DICKINSON, JR.
McCook, Nebr.

(Formerly of Ravenna, Nebr.)

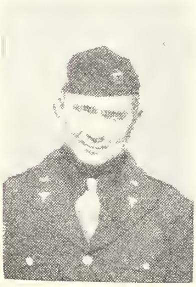
Born in Rockville, Nebr., Nov. 10, 1910. Graduated from University of Nebraska College of Medicine, 1934. Internships: Edmondson Memorial, Council Bluffs, Ia., 1934-35. Date of enlistment: Sept. 12, 1940. Rank: First Lieutenant. First assignment: Fort Douglas, Utah, Station Hospital. Subsequent major assignments: Fort Douglas, Utah; Will Rogers Field, Okla.; Birmingham, Ala.; Washington, D. C. Theatres of operations: Mediterranean Theatre of Operations; Northwest Africa and Italy. Citations, decorations: One Battle Star, one Bronze Arrowhead, three Overseas Service Bars, Mediterranean Theater Ribbon. Discharged on Nov. 11, 1946, with rank of Colonel. Graduate training after discharge: Obstetrics and Gynecology Post-Graduate, Washington University, St. Louis, Mo. Re-entered practice during November, 1946, in McCook, Nebr.

JOHN EDWIN DOWNING
Omaha, Nebr.

Born in Omaha, Nebr., March 19, 1912. Graduated from Creighton University, 1935. Internships and residencies: St. Joseph's Hospital, Omaha, 1935-36. Post graduate training prior to enlistment: 3 years Radiology, 1937-1940. Ordered to active duty April 1, 1941. Rank: First Lieutenant MC ORC. First assignment: Station Hospital, Camp Jos. T. Robinson, Ark.—Assistant Chief X-ray. Subsequent major assignments: Chief X-ray, Station Hospital, Camp Gruber, Okla.; Chief X-ray, Regional Hospital, Camp Barkeley, Tex.; Assistant X-ray Diagnostic Section, Chief X-ray Therapy Section, William Beaumont General Hospital, El Paso, Tex. Theatres of operations: American, 8th Service Command. Citations, decorations: American Defense Medal. Discharged on Oct. 31, 1945, with rank of Lieutenant Colonel M.C. Entered practice on Jan. 15, 1946, in Omaha.

JAMES P. DONELAN
Omaha, Nebr.

Born in Glenwood, Iowa, Nov. 12, 1904. Graduated from University of Nebraska College of Medicine, June, 1929. Internships: Immanuel Hospital, Omaha, 1930. Date of enlistment: March, 1943. Rank: Captain. First assignment: O'Reilly General Hospital Ward Officer and Assistant Executive Officer. Subsequent major assignments: Chief Cardiovascular section England General Hospital, Atlantic City, N. J.; Assistant Chief Medical Service and Executive Officer, 242nd General Hospital, E.T.O. Theatres of operations: European Theatre Operations 242nd General Hospital. Discharged on Oct. 22, 1945. Returned to his post as Medical Director of an insurance company in Omaha Oct. 22, 1945.



DAWSON ARNOLD DOWELL
Omaha, Nebr.

Born in Hamlin, Kansas, Febr. 14, 1906. Graduated from Creighton University, 1931. Internships and residencies: Evangelical Covenant, Omaha; Creighton Memorial, St. Joseph's, 1932 to 1935 Date of enlistment: January 12, 1943. Rank: Captain. First assignment: Carlisle Barracks, Pa. Subsequent major assignments: Camp Carson, Colo.; Fort Riley, Kan.; Fitzsimons General Hospital, Denver, Colo. Theatres of operations: Mediterranean Theatre—Morocco, Algeria, Tunisia, Sicily and Italy (Invasion). Citations, decorations: Service Medals for the Theatre of Operation (EAME) and the Campaign (Naples-Foggia). Discharged on Febr. 28, 1946, with rank of Major. Re-entered practice on March 1, 1946, in Omaha, Nebr.

WILBUR S. EATON
Colfax, Iowa

Born in Lincoln, Nebr., Jan. 9, 1905. Graduated from University of Nebraska College of Medicine, June, 1937. Internships: St. Catherine's Hospital, Omaha, 1937-38. Date of enlistment: Jan. 30, 1941. Rank: First Lieutenant. First assignment: Ft. Crook Station Hospital, Ft. Crook, Nebr. Subsequent major assignments: Chief of Dispensaries, 4th Replacement Dept., Melbourne and Sydney, Australia; Medical Ward Officer, 174th Station Hospital, Milne Bay, Australia; Assistant Chief Orthopedics, Station Hospital, Camp Ellis, Ill.; Assistant Orthopedics, Stark General Hospital, Charleston, S. C.; Acting Chief Dermatology, Ft. Ord, Calif.; Orthopedic Officer, Ft. Logan, Colo. Theatres of operations: Australia, New Guinea. Citations, decorations: American Defense Ribbon; New Guinea Campaign. Discharged on Dec. 26, 1945, with rank of Captain, Medical Corps. Re-entered practice in September, 1946, in Colfax, Iowa.

JAMES NORTH EVANS
Columbus, Nebr.

Born in Columbus, Nebr., March 30, 1890. Graduated from Jefferson Medical College, 1917. Internships: Pittsburgh General Hospital, Pittsburgh, Pa., 1917. Post graduate training prior to enlistment: New York Lying-In, 1926. Active duty, December 23, 1940; rank of Major. First assignment: Commanding Officer, Collecting Company No. 130, Nebraska National Guard. Subsequent major assignments: Plans and Training Officer, 110th Medical Regiment; Regimental Surgeon, 134th Infantry, 35th Division, 1941; Attending Surgeon, Fitzsimmons General Hospital, Denver, Colo., 1941 and 1942. Discharged on June 11, 1943, with rank of Lieutenant Colonel, Medical Corps. Re-entered practice on June 1, 1944, in Columbus, Nebr.

CLARENCE KILGORE ELLIOTT
Lincoln, Nebr.

Born in Wilber, Nebr., Dec. 8, 1904. Graduated of Nebraska, A.B., 1927; University of Chicago—Rush, 1932. Internship and Residencies: Presbyterian Hospital of Chicago, 1931 to 1933. Date of enlistment: May 19, 1943. Rank: Lieutenant Commander. First assignment: Ward Medical Officer, USNTS, Great Lakes, Ill. Subsequent major assignments: U.S.A.B.P.D., San Bruno, Calif.; School of Tropical Medicine, Treasure Island; U. S. Fleet Hospital 114; Temporary Additional duty 126 General Hospital, Leyte; U.S.N.H., Mare Island, Calif.; U.S.N.H., Corpus Christi, Texas. Theatres of operations: American, Southwest Pacific, Philippine. Citations, decorations: Expert Pistol. Discharged on May 15, 1946, with rank of Commander. Graduate training after discharge: American College of Physicians short course. Re-entered practice on Oct. 1, 1946, in Lincoln.

GREGORY L. ENDRES
Omaha, Nebr.

Born in Omaha, Nebr., Aug. 24, 1902. Graduated from University of Nebraska Medical School, March, 1928. Internships and residencies: California Lutheran Hospital, 1928-29. Post graduate training prior to enlistment: Dermatology, 1932. Date of enlistment: July 1, 1941. Rank: Lieutenant (j.g.). First assignment: Orange, Texas. Subsequent major assignments: Ordinance Plant, Wahoo, Nebr.; Farm Labor Division, Caldwell, Idaho; U. S. Quarantine Station, Fort Monroe, Va.; Norfolk, Va. Discharged on July 1, 1944, with rank of Lieutenant (j.g.) Inactive. Re-entered practice on July 10, 1944, in Omaha, Nebr.

BEN EDWARD EWING
Nebraska City, Nebr.

Born in Creston, Nebr., May 24, 1916. Graduated from Nebraska College of Medicine, 1939. Internships: Immanuel Hospital, Omaha, Nebr., 1939-40. Date of enlistment: Aug. 22, 1942. Rank: First Lieutenant. First assignment: Attending Surgeon, Station Hospital, Moore Field, Mission, Tex. Subsequent major assignments: Assistant Surgeon, 316 Army Air Force Training School (Primary), Chickasha, Okla.; Station Surgeon, Station 803, Ninth Air Force; 223 Medical Disp. (Aviation), Advanced Headquarters Ninth Air Force. Theatres of operations: European Theater, England, France, Luxembourg, Belgium, Germany. Citations, decorations: 4 Battle Stars; Bronze Star. Discharged on Nov. 26, 1945, with rank of Captain. Graduate training after discharge: Refresher. Re-entered practice on Dec. 11, 1945, in Nebraska City, Nebr.

NEILL J. EVERITT
Omaha, Nebr.

Born in Omaha, Nebr., May 14, 1894. Graduated from Creighton Medical College, 1917. Internship: St. Joseph Memorial Hospital, 1917-18. Date of enlistment: December, 1940. Rank: Lieutenant Colonel. First assignment: Surgeon's Office, 7th Service Command. Discharged in December, 1946, with rank of Colonel. Re-entered practice in 1947 in Omaha.

CARL J. FORMANACK
Syracuse, Nebr.

Born in Parker, S. D., Oct. 23, 1911. Graduated from Creighton University, June, 1935. Internship: St. Joseph's Hospital, Omaha, Nebr., 1935-36. Post graduate training prior to enlistment: Emergency Medical Service, 1941-42; Resident Surgeon, Peterborough Hospital, England. Date of enlistment: Dec. 14, 1942. Rank: First Lieutenant. First assignment: 3rd Station Hospital. Tidworth, England. Subsequent major assignments: 2nd General Hospital, 763 Railway Battalion. Theatres of operations: England, France, Belgium. Discharged on January 1, 1946, with rank of Captain. Re-entered practice on January 1, 1946, in Otoe, Nebr.

CHESTER H. FARRELL
Omaha, Nebr.

Born in Council Bluffs, Iowa, July 12, 1906. Graduated from Creighton University Medical College, June 6, 1930. Internship: St. Lukes Hospital, Denver, Colo., 1930-31. Residencies: Hastings State Hospital, Hastings, Nebr., 1931-36. Post graduate training prior to enlistment: U.S.P.H.S., 1936-42. Date of enlistment: May 16, 1942. Rank: First Lieutenant, Medical Corps. First assignment: Assistant Chief, Neuropsychiatric Section, Station Hospital, Camp Wolters, Tex., 1942-43. Subsequent major assignments: Chief, Neuropsychiatric Section, Ashburn General Hospital, McKinney, Tex., 1943-46. Discharged on March 26, 1946, with rank of Major, Medical Corps. Re-entered practice on Febr. 1, 1946, in Omaha.

ABE C. FELLMAN
Omaha, Nebr.

Born in Omaha, Nebr., June 12, 1909. Graduated from Creighton Medical School, 1933. Internships: St. Joseph's, Omaha, 1933-1934. Date of enlistment: June 30, 1942. Rank: First Lieutenant. First assignment: Ft. Warren, Wyo. Subsequent major assignments: 347 Field Artillery, 91st Division. Theatre of operations: Italy. Discharged on Nov. 3, 1945, with rank of Captain. Re-entered practice on Jan. 1, 1946, in Omaha.

ALISTER I. FINLAYSON
Omaha, Nebr.

Born in Omaha, Nebr., Febr. 3, 1914. Graduated from University of Nebraska, June, 1937. Internships: University of Nebraska Hospital, 1937-38. Residencies: University of Nebraska, M.A. degree, 1939; Montreal Neurological Institute, Montreal, Can., 1939-40; Fellow in Neurosurgery, Mayo Foundation, 1940-41. Date of enlistment: Sept., 1941. Rank: First Lieutenant, (MC). First assignment: Neuropsychiatrist, Ft. Crook Induction Station. Subsequent major assignments: Neurological Surgeon, 10th Evacuation Hospital; Neurological Surgeon, 363rd Station Hospital; Neurological Surgeon, 249th General Hospital; Neurological Surgeon, O'Reilly General Hospital. Theatres of operations: Southwest Pacific. Citations, decorations: Presidential Unit Citation; Two Campaign Stars on Asiatic Pacific Theater Ribbon; American Defense Ribbon. Discharged on Dec. 10, 1945, with rank of Captain, Medical Corps. Graduate training after discharge: Preceptorship in Neurosurgery. Re-entered practice on Dec. 1, 1945, in Omaha, Neurological Surgery.

RICHARD J. FANGMAN
Omaha, Nebr.

Born in Omaha, Nebr., May 21, 1920. Graduated from Creighton University School of Medicine, 1944. Internships: St. Joseph's Memorial Hospital, Omaha, 1944. Residencies: St. Francis Hospital, Wichita, Kan. (Pathology), July, 1946-July, 1947. Date of enlistment: April 1, 1942. Rank: Lieutenant (jg). First assignment: Santa Margarita, U.S.N.H., Oceanside, Calif. Subsequent major assignments: USS Aegir, A.S. 23, Assistant M.O.; USS Rocky Mount, AGC-3, Senior M.O. Theatre of operations: Pacific. Discharged on July 5, 1947, with rank of Lieutenant (jg) MC, USNR. Graduate training after discharge: Pathology. Entered practice in July, 1947, in Residency.

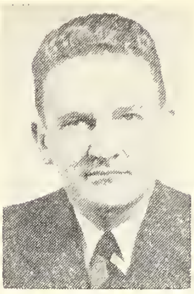
JOHN J. FREYMANN
Omaha, Nebr.

Born in Le Mars, Iowa, Dec. 13, 1889. Graduated from Creighton University College of Medicine, 1917. Internships: U. S. Naval Hospital, Mare Island, Calif., 1917. Residencies: Lord Lister Hospital, Omaha, Nebr., 1919-21. Date of enlistment, first World War: April 13, 1917; rank, Lieutenant (jg) MC, USN; second World War: Sept. 5, 1940, rank, Lieutenant Commander (MC), USNR. Major assignments, first World War: U. S. Naval Hospital, Mare Island, Calif.; USS Caldwell; U. S. Naval Training Barracks, Queenstown, Ireland; USS Prinz Frederick Wilhelm; U. S. Naval Hospital, Great Lakes, Ill. Major assignments, second World War: Medical Inspector of Recruiting and Induction, Seventh Joint Service Induction Area; Wave Officers School, Smith College, North Hampton, Mass.; U. S. Naval Hospital, New York City; Commanding Officer Base Hospital G-4-11 and 15, Okinawa; Commanding Officer U. S. Military Government Hospital No. 202, Saipan. Theatres of operations: Western Pacific, Okinawa and Saipan. Discharged on April 1, 1946, with rank of Captain, (MC), USNR. Graduate training after discharge: Woman's Hospital, New York City. Re-entered practice on July 1, 1946, in Omaha.

SAMUEL Z. FAIER
Fort Smith, Ark.

(Formerly of Omaha, Nebr.)

Born in Omaha, Nebr., Jan. 1, 1907. Graduated from Creighton Medical School, 1929. Internship: Sinai Hospital, Baltimore, Md., 1929-30. Residency: Otolaryngology and Ophthalmology, Washington University School of Medicine, 1930-33. Date of enlistment: Feb. 14, 1942. Rank: First Lieutenant. First assignment: Station Hospital, Fort Sam Houston, Tex. Subsequent major assignments: Station Hospital, Camp Hood, Tex.; 159 General Hospital; Vaughan General Hospital. Theatres of operations: European Theatre, England and Wales. Discharged on March 2, 1946, with rank of Major. Graduate training after discharge: Bronchoscopy, Chicago; Rhinoplasty, New York City; Fenestration operation for deafness, New York City. Re-entered practice on Nov. 19, 1946, in Fort Smith, Ark.



JAMES F. FINEGAN
Omaha, Nebr.

Born in Nebraska, June 9, 1905. Graduated from Creighton University, 1927. Internships: St. Mary's Hospital, Rochester, N. Y., 1927-28. Residency: Wills Eye Hospital, Philadelphia, Pa., 1934-1936. Post graduate training prior to enlistment: University of Pennsylvania, Basic Course in Ophthalmology, 1933-34. Date of enlistment: June 20, 1942. Rank: Lieutenant (MC) USNR. First assignment: U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: U. S. Naval Operating Base, Dutch Harbor, Alaska; Eye Center, U. S. Naval Hospital, Philadelphia, Pa.; Rehabilitation of Blind, U. S. Naval Hospital, Philadelphia, Pa. Theatre of operations: Pacific. Discharged on June 7, 1946, with rank of Lieutenant Commander (MC) USNR. Re-entered practice on July 1, 1947, in Omaha.

MAURICE D. FRAZER
Lincoln, Nebr.

Born in Utica, Nebr., April 3, 1911. Graduated from University of Nebraska, June, 1937. Internships: Nebraska Methodist Hospital, Omaha, Nebr., 1937-38. Date of enlistment: July 7, 1943. Rank: First Lieutenant. First assignment: Station Hospital, Camp Edwards, Mass. Subsequent major assignments: 262 General Hospital, Fort Clayton, Panama Canal Zone. Citations, decorations: Victory Medal. Discharged on May 26, 1946, with rank of Major. Re-entered practice on April 15, 1946, in Lincoln.

IVAN M. FRENCH
Wahoo, Nebr.

Born in Ewing, Nebr., Jan. 23, 1920. Graduated from University of Nebraska College of Medicine, Dec. 18, 1943. Internships: Immanuel Hospital, Omaha, Nebr. Date of enlistment: Oct. 4, 1944. Rank: First Lieutenant. First assignment: Medical Field Service School, Carlisle Barracks, Pa. Subsequent major assignments: Orthopedic Service, Waltham Regional Hospital, Waltham, Mass.; Gardiner General Hospital. Chicago, Ill. Theatres of operations: Luzon, Philippine Islands; Kyushu, Japan; Honshu, Japan. Citations, decorations: American Defense, Asiatic Pacific, Philippine Liberation, Victory, Occupation. Discharged on Nov. 18, 1946, with rank of Captain. Graduate training after discharge: University of Nebraska Hospital. Re-entered practice on March 15, 1947, in Wahoo.

DONOVAN BYRNE FOOTE
Hastings, Nebr.

Born in Hastings, Nebr., Dec. 30, 1911. Graduated from Northwestern University Medical School, 1937. Internship: St. Luke's Hospital, Chicago, Ill., 1937 and 1938. Date of enlistment: Oct. 21, 1941. Rank: First Lieutenant. First assignment: Ft. Crook, Nebr. Subsequent major assignments: Ft. Lewis, Wash.; 51st Evacuation Hospital. Theatres of operations: 93rd Evacuation Hospital, Italy, France, Germany. Discharged on Jan. 3, 1946, with rank of Major. Graduate training after discharge: Bronchoscopy, Temple University. Re-entered practice in January, 1946, in Hastings, Nebr.

C. FRED FERCIOT
Lincoln, Nebr.

Born in Canton, Ohio, June 8, 1908. Graduated from College of Medical Evangelists, 1933. Internships and Residencies: Lincoln General Hospital, 1933; Nebraska State Orthopedic Hospital, 1933-36. Date of enlistment: February, 1936; Active Duty Jan. 12, 1942. Rank: Lieutenant MC, USNR. First assignment: Puget Sound Navy Yard. Subsequent major assignments: U. S. Naval Hospitals — Norman, Okla.; Norfolk, Va.; Base Hospital No. 9, Australia; Base Hospital No. 15, Manus Island; NABU No. 5, Subic Bay, P. I. Theatres of operations: Seventh Fleet, Southwest Pacific Area; Philippine Sea Frontier. Discharged on Febr. 1, 1946, with rank of Commander, MC, USNR. Re-entered practice on February, 1946, in Lincoln.

FAY LORENZO GARNER
Madison, Nebr.

Born in Seward, Nebr., Aug. 9, 1911. Graduated from University of Nebraska, 1942. Internship: Miller Hospital, St. Paul, Minn., 1942-43. Rank: First Lieutenant M.C. First assignment: Fitzsimons General Hospital, Denver, Colo. Subsequent major assignments: Station Hospital, Camp White, Ore.; 185th General Hospital, England; 173rd General Hospital, France; 125th Evacuation Hospital, Germany. Theatre of operations: ETO. Citations, decorations: ETO Ribbon; American Theatre; Army Occupation, Germany; World War II Victory. Discharged on June 26, 1946, with rank of Major. Re-entered practice in June, 1946, in Manhattan, Kan., and February, 1947, at Madison, Nebr.

JOHN WILLIAM GATEWOOD
Omaha, Nebr.

Born in Deadwood, S. D., May 23, 1909. Graduated from Creighton University School of Medicine, 1933. Internship: Douglas County Hospital, Omaha, Nebr., 1933-34. Residency: Gorgas Hospital, Ancon, Canal Zone, 1937-1939. Post graduate training prior to enlistment: Graduate School, University of Pennsylvania, 1936-1937, 1939. Date of enlistment: August, 1942. Rank: Captain. First assignment: Station Hospital, Camp Beale, Calif. Subsequent major assignments: McCaw General Hospital, Walla Walla, Wash.; Birmingham General Hospital, Van Nuys, Calif. Theatre of operations: Zone of Interior. Discharged in April, 1946, with rank of Major. Re-entered practice in February, 1946, in Omaha.

MAYNARD M. GREENBERG
Omaha, Nebr.

Born in Omaha, Nebr., March 19, 1903. Graduated from Creighton Medical School, Omaha, Nebr., 1928. Internship: St. Vincents Hospital, Portland, Ore., 1928-1929. Post graduate training prior to enlistment: University of Pennsylvania Graduate School, 1929. Date of enlistment: June 4, 1942. Rank: Captain. First assignment: Camp Crowder, Mo. (Station hospital). Subsequent major assignments: Station Hospital, Camp Carson, Colo.; 180th General Hospital; 115th General Hospital. Theatre of operations: ETO. Citations, decorations: Unit Citation, one Battle Star. Discharged on Dec. 27, 1945, with rank of Lieutenant Colonel. Re-entered practice in February, 1946, in Omaha.

MARLS C. GREEN
Omaha, Nebr.

Born in Wisconsin, Oct. 1, 1902. Graduated from University of Nebraska, 1929. Internship: St. Josephs Hospital, Kansas City, Mo., 1929-30. Date of enlistment: Sept. 7, 1942. Rank: Lieutenant Commander. First assignment: U. S. Naval Training Station, San Diego, Calif. Subsequent major assignments: U.S.N. Machinist Mates' School, Los Cruces, N. Mex.; U. S. Naval Hospital, San Diego, Calif.; Acorn 26; Base Hospital 20; U. S. Naval Separation Center, New Orleans, La. Theatres of operations: Southwest Pacific, Asiatic Pacific. Discharged on Nov. 6, 1945, with rank of Commander. Re-entered practice on Nov. 12, 1945.

WILLARD MAX GENTRY
Gering, Nebr.

Born in Minatare, Nebr., Oct. 20, 1896. Graduated from University of Nebraska College of Medicine, June, 1923. Internships: University Hospital, Omaha, 1923-24. Date of enlistment: Active duty—July 1, 1942. Rank: Captain. First assignment: Army Medical Center, Washington, D. C., for course in Tropical and Military Medicine. Subsequent major assignments: Bolling Field Station Hospital; Surgeon, Field Artillery Training Center, Kunming, China, CBI; Instructor, Medical, Section, Infantry Training Center, Kunming, China, for two months—then at Kweilin for one year; Surgeon, Forward Echelon, Z-Force, China; Surgeon, Kwangsi Command, Liaison function, Poseh, China; Overseas assignment from Dec. 7, 1942 to Sept. 12, 1945. Citations, decorations: Bronze Star. Discharged on Dec. 23, 1945, with rank of Lieutenant Colonel. Re-entered practice on Sept. 20, 1945, in Gering.

RICHARD WALTER GRAY
Pendleton, Oregon

Born in Upland, Nebr., May 5, 1911. Graduated from University of Nebraska College of Medicine, June, 1937. Internship: Madison General Hospital, Madison, Wis., 1937-38. Post graduate training prior to enlistment: State Hospital, Lincoln, Nebr., July, 1939 to June, 1942; Brattleboro Retreat, Brattleboro, Vt., June, 1938 to June, 1939. Date of enlistment: June 10, 1942. Rank: Lieutenant (j.g.), Medical Corps (V)S, USNR. Assignments: Indoctrination, Naval Hospital Bethesda, Md.; Hospital Unit CUB II; Base Hospital No. 7; Base Hospital No. 6; USN Hospital, Chelsea, Mass.; Naval Hospital, Bethesda, Md. Theatres of operations: South Pacific—Solomon Islands and New Hebrides. Discharged on Nov. 27, 1945, with rank of Lieutenant Commander. Re-entered practice on Jan. 1, 1946, in State Hospital, Lincoln, Nebr.

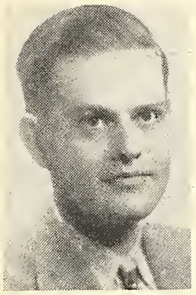
RICHARD E. GARLINGHOUSE
Lincoln, Nebr.

Born in Oletha, Kan., March 5, 1910. Graduated from Pennsylvania State, 1934. Internship and Residencies: St. Louis City Hospital, 1934 to 1937. Date of enlistment: May 15, 1942. Rank: Lieutenant (j.g.), Medical Corps, USNR. First assignment: U. S. Naval Dispensary, Long Beach, Calif. Subsequent major assignments: USS Williams (DD 244); U. S. Naval Hospital, Oakland, Calif. Theatres of operations: Pacific—North, South and Central. Citations, decorations: Asiatic Pacific, 2 Campaign Stars; American Defense; Victory Medal. Discharged on Febr. 9, 1946, with rank of Lieutenant Commander. Re-entered practice on Jan. 1, 1946, in Lincoln.

LUTHER VERNON GIBSON

Lincoln, Nebr.

Born in West Virginia, Aug. 9, 1896. Graduated from University of Cincinnati, 1924. Internship: Wheeling Hospital, Wheeling, W. Va., 1924-25. Post graduate training prior to enlistment: Cook County, P. G., 1934. Date of enlistment: Dec. 26, 1941. Rank: Lieutenant Commander. First assignment: Puget Sound Navy Yard. Subsequent major assignments: Training in distribution center, Shumaker, Calif.; Small Boat Landy Equipment Depot, Albany, Calif.; U.S.S. Chaumont, U.S.S. Guam. Discharged on March 19, 1946, with rank of Captain. Re-entered practice on Jan. 1, 1946, in Lincoln, Nebr.



ARTHUR M. GREENE

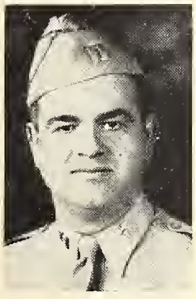
Omaha, Nebr.

Born in Omaha, Nebr., April 9, 1910. Graduated from University of Nebraska College of Medicine, 1933. Internship and Residencies: Michael Reese Hospital, Chicago, Ill., 1933-35; Michael Reese Hospital, Chicago, Ill., 1935-36; Lahey Clinic, Boston, Mass., 1938-39. Post graduate training prior to enlistment: University of Pennsylvania Graduate School of Medicine, 1937-38. Date of enlistment: May 24, 1941. Rank: First Lieutenant. First assignment: Ward Surgeon, Ft. Leonard Wood, Mo. Subsequent major assignments: Assistant Post surgeon, Albrook Field, Canal Zone; Group Surgeon, 32nd Fighter Group, France Field, Canal Zone; Flight Surgeon, Liberal Army Air Field, Kan.; Assistant Chief of Medical Service, Buckley Field, Colo.; Chief of Medical Service, Lake Charles AAF, La. Theatres of operations: Panama Canal Department. Discharged on Jan. 15, 1946, with rank of Lieutenant Colonel. Re-entered practice in November, 1945, in Omaha.

JOE T. HANNA

Scottsbluff, Nebr.

Born in Missouri, June 25, 1906. Graduated from University of Nebraska, 1937. Internships: Lutheran Hospital, Omaha, Nebr., 1936; Swedish Hospital, Seattle, Wash., 1937. Post graduate training during term of duty: Marburg, Germany; Heidelberg, Germany. Date of enlistment: June 7, 1937. Rank: First Lieutenant. First assignment: SCRTC, Camp Crowder, Mo. Subsequent major assignments: 84th Engineer Com. Bn.; 343rd Engineer G. S. Regt.; Surgeon, General Dispensary for C.B.S. Theatres of operations: E.T.O. Citations, decorations: American Theater Campaign; American Defense Service Medal; EAME Campaign; Occupation of Germany Medal; World War II Victory Medal. Discharged on Aug. 4, 1947, with rank of Major. Re-entered practice on July 1, 1947, in Scottsbluff, Nebr.



RICHARD W. HOMAN

Crete, Nebr.

Born in Bellwood, Nebr., Sept. 29, 1910. Graduated from Creighton University, 1935. Internship: St. Catherine's Hospital, Omaha, 1935-36. Date of enlistment: April 15, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Francis E. Warren, Wyo. Subsequent major assignments: Medical Service with 147th General Hospital; Medical Service, 1st Station Hospital; Medical Service 219th General Hospital. Theatres of operations: Hawaiian Islands, Marshall Islands, Gilbert Islands. Citations, decorations: Combat Star, Kwajelein. Discharged on Jan. 22, 1946, with rank of Captain. Re-entered practice on Dec. 1, 1945, in Crete.

CLYDE C. HARDY

Omaha, Nebr.

Born in Nebraska, Oct. 29, 1897. Graduated from University of Nebraska, 1922. Internships: University Hospital, Omaha, Nebr., 1922-23. Date of enlistment: May 18, 1942. Rank: Major. First assignment: AAF, Sheppard Field, Wichita Falls, Tex. Subsequent major assignments: AAF, Buckley Field, Denver, Colo. Discharged on Nov. 9, 1945, with rank of Lieutenant Colonel. Re-entered practice on Dec. 1, 1945, in Omaha.

CLIFFORD H. HANSEN

Omaha, Nebr.

Born in Council Bluffs, Iowa, April 20, 1906. Graduated from Creighton University School of Medicine, 1937. Internship: St. Joseph Hospital, Omaha, Nebr., 1937-38. Post graduate training prior to enlistment: University of Pennsylvania, 1939-40. Date of active duty: April 5, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Leonard Wood, Mo. Subsequent major assignments: Harmon General Hospital, Longview, Tex. Discharged on Dec. 14, 1945, with rank of Lieutenant Colonel, M.C. Re-entered practice on Jan. 1, 1946, in Omaha.

FREDERICK H. HATHAWAY

Lincoln, Nebr.

Born in Grantsville, W. Va., April 26, 1915. Graduated from University of Louisville (Ky.), School of Medicine, June, 1939. Internship and Residencies: University Hospital, Iowa City, Ia., 1939-40; Louisville General Hospital, 1940-43. Date of enlistment: Aug. 26, 1943. Rank: First Lieutenant. First assignment: Carlisle Barracks, Carlisle, Pa. Subsequent major assignments: AAF Regional Station Hospital, Wright Field, Dayton, Ohio. Citations, decorations: Army Commendation Ribbon. Discharged on Oct. 5, 1946, with rank of Captain, M.C. Re-entered practice on Nov. 1, 1946, in Lincoln.

ELMER T. HOBBS

Lincoln, Nebr.

Born in North Dakota, Dec. 15, 1906. Graduated from University of Nebraska, 1931. Internships: St. Elizabeth Hospital, Lincoln, Nebr., 1931-32. Date of enlistment: Dec. 23, 1940. Rank: First Lieutenant. First assignment: Commanding Officer, Co. I, 110th Medical Regiment. Subsequent major assignments: Chief Communicable Disease Section, 147th General Hospital; Chief Tropical Disease Section, 54th General Hospital. Theatres of operations: Central Pacific—147th General Hospital, Honolulu; Southwest Pacific—54th General Hospital, New Guinea; Detached Service as Ship's Surgeon, Philippines; Lingayen Gulf. Citations, decorations: Philippine Liberation Medal; Asiatic Pacific Service Medal; American Defense Service Medal; American Theatre Service Medal. Discharged on Nov. 14, 1945, with rank of Captain. Graduate training after discharge: Cook County Graduate School, (Internal Medicine). Re-entered practice on Sept. 1, 1945, in Lincoln, Nebr.

ALBERT EUGENE HARRINGTON

Hastings, Nebr.

Born in Ansonia, Conn., Febr. 11, 1908. Graduated from Georgetown, 1932. Internship and Residency: Danbury (Conn.) Hospital, 1932-33; Greenwich (Conn.) Hospital, 1933-34. Post graduate training prior to enlistment: Harvard, 1940. Date of enlistment: April 15, 1942. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Geo. Wright, Spokane, Wash. Subsequent major assignments: Flight Surgeon's Office, Galveston, Tex.; Headquarters, Army Air Forces, Washington, D. C. Theatres of operations: 21 ETO. Discharged on Febr. 2, 1946, with rank of Major. Re-entered practice on March 4, 1946, in Hastings, Nebr.

CLARENCE MELCHIUS HARTMANN

Omaha, Nebr.

Born in Minnesota, December 10, 1908. Graduated from Creighton, 1935. Internship: St. Joseph's, St. Paul, Minn., 1935-36. Date of enlistment: 1941. Rank: First Lieutenant. First assignment: 57 Medical Battalion. Subsequent major assignments: Medical Detachment, 748th M. P. Battalion; Surgeon, Central Security District, San Francisco, Calif.; 58th Field Hospital. Theatres of operations: ETO. Discharged on Dec. 23, 1945, with rank of Major. Re-entered practice on April 1, 1946, in Omaha, Nebr.

JOSEPH M. HORWICH

Omaha, Nebr.

Born in Omaha, Nebr., April 10, 1913. Graduated from University of Nebraska College of Medicine, 1937. Internship: Menorah Hospital, Kansas City, Mo., 1937-38. Residencies: Baptist Hospital, Birmingham, Ala., 1938-40. Date of enlistment: Jan. 15, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Fort Des Moines, Iowa. Subsequent major assignments: Station Hospital, Fort Meade, S. Dak.; Station Hospital, Fort Snelling, Minn. Theatres of operations: European Theater of Operations—England, France, Luxembourg. Citations, decorations: Battle Stars—Normandy, Western Europe, Ardennes, Rhineland. Discharged in November, 1945, with rank of Lieutenant Colonel. Re-entered practice in July, 1946, in Omaha.

GEORGE F. HENNEGAN

Omaha, Nebr.

Born in Omaha, 1899. Graduated from Creighton University, 1927. Internship and Residencies: St. Mary's Hospital, San Francisco, 1927-28; House Physician, Providence Hospital, Oakland, Calif., 1928-30. Date of enlistment: May 26, 1942. Rank: Captain. First assignment: 89th Infantry Division. Subsequent major assignments: 151 Station Hospital, Oran, North Africa; 12 General Hospital, Italy. Theatres of operations: Mediterranean — Africa, Sicily and Italy. Citations, decorations: Service Ribbons, World War I and II; European Theatre; Africa Battle Star. Discharged on April 18, 1946, with rank of Major. Re-entered practice in 1946, in Omaha, Nebr.

WILLARD HUGHES HILL

Fremont, Nebr.

Born in Omaha, Nebr., Jan. 20, 1909. Graduated from Creighton University, June 4, 1936. Internships: St. Joseph Mercy Hospital, Sioux City, Ia., 1936-37. Date of enlistment: March 20, 1941. Rank: First Lieutenant. First assignment: 7th Infantry, 3rd Division, Ft. Lewis, Wash. Subsequent major assignments: 56th Station Hospital, Casablanca, French Morocco. Theatres of operations: North Africa, Middle East. Discharged on Febr. 22, 1946, with rank of Captain. Re-entered practice on Febr. 1, 1947, in Fremont.

FRANCIS ELIAS HOUGHTON

Beatrice, Nebr.

Born in Wymore, Nebr., Dec. 22, 1911. Graduated from University of Nebraska College of Medicine, 1936; Internships and Residency: University of Rochester College of Medicine, Surgical Service, 1936; Fellow in Surgery, Cleveland Clinic, 1939; Cleveland Clinic, Cleveland, O., Surgical Resident. Date of enlistment: May 21, 1941. Rank: Captain. First assignment: Chief of Surgery, Ft. Crook Station Hospital, Ft. Crook, Nebr. Subsequent major assignments: Assistant Chief Surgery, Regional Station Hospital, Camp Crowder, Mo.; Neuro Surgical Section, Lawson General Hospital, Atlanta, Ga.; Chief of Neuro Surgical Team, 4th Auxiliary Surgical Group; Chief of Surgery, 121st Evacuation Hospital. Theatres of operations: European Theatre attached to the 3rd Army. Discharged in January, 1946, with rank of Lieutenant Colonel. Re-entered practice in January, 1946, with The Beatrice Medical Group, Beatrice, Nebr.

J. WILLIAM HERVERT

Lincoln, Nebr.

Born in Gibbon, Nebr., May 22, 1904. Graduated from Nebraska Medical College, June 7, 1931. Internship: Vancouver General Hospital, Vancouver, B. C., Canada, 1931-32. Date of enlistment: Aug. 18, 1941. Rank: First Lieutenant, Medical Corps, Reserve. First assignment: Air Corps Station Hospital, Gowen Army Air Base, Boise, Idaho. Subsequent major assignments: 75th Bombardment Squadron, 42nd Bombardment Group, Portland Army Air Base, Portland, Ore.; Chemical Warfare School, Edgewood Arsenal, Md.; Station Hospital, Portland Army Air Base, Portland, Ore.—Chief of Medical Service, Chemical Casualty Officer. Discharged on Sept. 22, 1945, with rank of Captain. Re-entered practice on Nov. 4, 1945, in Lincoln, Nebr.

PAUL J. HUBER

Crete, Nebr.

Born in Lincoln, Nebr., July 26, 1905. Graduated from University of Nebraska College of Medicine, June 10, 1935. Internship: St. Elizabeth Hospital, Lincoln, Nebr., 1935. Date of enlistment: Dec. 23, 1940. Rank: Captain. First assignment: 35th Infantry Division Company Commander, Clearing Company. Subsequent major assignments: Plans and Training Officer, Executive Officer, 110th Medical Battalion, 35th Infantry Division. Theatres of operations: ETO, England, France, Belgium, Holland, Luxembourg, Germany. Citations, decorations: EAME Service Medal; ETO Battles—Normandy, Ardennes, Rhineland, Northern France, Central Europe. Discharged on January 28, 1946, with rak of Lieutenant Colonel. Re-entered practice in January, 1946, in Crete.

LAWRENCE E. HUDGEL

Scottsbluff, Nebr.

Born in Anthon, Iowa, June 12, 1912. Graduated from University of Iowa, 1936. Internship: South Bend, Ind., 1936-37. Date of enlistment: Jan. 2, 1941. Rank: First Lieutenant. First assignment: Carlisle Barracks, Penn. Subsequent major assignments: Camp Grant, Ill.; Fort Lewis, Wash. Discharged on Febr. 22, 1946, with rank of Lieutenant Colonel. Re-entered practice on Febr. 22, 1947, in Scottsbluff, Nebr.

WILLIAM EDSON HUNGERFORD

Omaha, Nebr.

Born in Belgrade, Mont., Sept. 11, 1906. Graduated from Creighton Medical School, 1940. Internship: St. Catherines, Omaha, 1940-41. Date of enlistment: May 26, 1942. Rank: First Lieutenant. First assignment: Noff General Hospital, Santa Barbara, Calif. Subsequent major assignments: 186 Station Hospital, Ft. Glenn, Uniak Island; 53rd Infantry Medical Officer, Amchitka Island; 304th Ordnance, Guam. Theatres of operations: Alaskan Division; Mid-Pacific Theatre, Mariannas. Discharged on Jan. 9, 1946, with rank of Captain. Graduate training after discharge: Walter Reed Medical School, Washington, D. C.,—3 months course Tropical Medicine. Entered practice on June 1, 1946, in Omaha.

FRANK J. IWERSEN

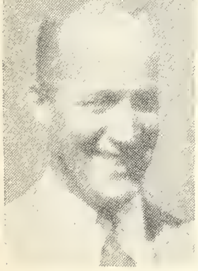
Omaha, Nebr.

Born in Early, Iowa. Graduated from Creighton University, 1935. Internship: St. Joseph's Hospital, Omaha, Nebr., 1935-36. Date of enlistment: Jan. 4, 1941. Rank: Lieutenant (j.g.). First assignment: Marine Corps Base, San Diego, Calif. Subsequent major assignments: Navy Hospital, Washington, D. C.; Pensacola, Fla.; Naval Air Station, San Diego, Calif.; South Pacific Air Group; Naval Air Station, San Diego, Calif.; Air Group 60. Theatres of operations: South Pacific, Southwest Pacific, Central Pacific. Citations, decorations: Pacific War Ribbon, One Battle Star, American Theatre of Operations, Pre-Pearl Harbor. Discharged on Jan. 24, 1946, with rank of Commander, USNR. Re-entered practice immediately in January, 1946, in Omaha.

MYRON C. JOHNSON

Mitchell, Nebr.

Born in Genoa, Nebr., June 11, 1918. Graduated from University of Nebraska College of Medicine, March, 1943. Internship: City and County Hospital, San Francisco, Calif., 1943-44. Date of enlistment: March, 1942; rank: Ensign H-VP (USNR). To active duty Febr. 10, 1944, as Lieutenant (j.g.), Medical Corps, USNR. First assignment: Treasure Island Naval Hospital, Treasure Island, Calif., Febr. 10, 1944 to April 27, 1944. Subsequent major assignments: USS Thuban, Assault Cargo Transport, April 27, 1944, to Febr. 1, 1946; Shoemaker Naval Hospital, Shoemaker, California, Febr. 17, 1946, to May 27, 1946. Theatres of operations: Southwest Pacific, Philippines, Japan, and China. Citations, decorations: American Theatre Ribbon; Asiatic-Pacific Ribbon with Five Stars; Philippine Ribbon with Two Stars; World War II Victory Ribbon. Discharged on July 4, 1946, terminal leave ended. Rank: Lieutenant, Medical Corps, USNR. Graduate training after discharge: Review Course for Medical Officers, Courses for Graduates, Harvard Medical School, August, 1946 to February, 1947. Re-entered practice on May 1, 1947, in Mitchell, Nebr.



AUGUST F. JONAS, JR.

Erie, Penn.(Formerly of Omaha)

Born in Omaha, Nebr., Jan. 10, 1909. Graduated from Harvard Medical School (cum laude), 1933. Internships and Residencies: Surgical Residency, The Johns Hopkins Hospital, 8 years, 1933 to 1941. Date of enlistment: March, 1942. Rank: Captain. First assignment: 118th General Hospital, continuously for the duration of the war. Subsequent major assignments: Chief of General Surgical Section; Chief of Surgical Service. Theatres of operations: Pacific-Asiatic; Australia, New Guinea, Philippines. Citations, decorations: Campaign Ribbons, Bronze Star. Discharged in April, 1946, with rank of Lieutenant Colonel. Located in Erie, Penn., in April, 1946.

WILBUR E. JOHNSON

Valentine, Nebr.

Born in Stuart, Nebr., Jan. 1, 1909. Graduated from University of Nebraska, June 5, 1939. Internships and residencies: Charity Hospital, New Orleans, La., 1939-40; Charity Hospital, New Orleans, La., 1941. Date of enlistment: March 5, 1941. Rank: First Lieutenant. First assignment: 9th Medical Battalion, Fort Bragg, N. C. Subsequent major assignments: 27th Medical Battalion; 2nd Provisional Station Hospital; 148th General Hospital. Theatres of operations: Central Pacific Area. Discharged on Oct. 30, 1945, with rank of Captain. Re-entered practice on Dec. 1, 1945, in Valentine.

ROBERT EUGENE KARRER

York, Nebr.

Born in Benedict, Nebr., Febr. 17, 1912. Graduated from University of Nebraska, 1936. Internships: University of Nebraska Hospital, 1936-37 Date of enlistment: Jan. 1, 1943. Rank: Lieutenant (j.g.). First assignment: 13th Naval District, Seattle, Wash. Subsequent major assignments: P.F. 34 to Aleutian Islands; APA USS Arthur Middleton to Philippine Islands. Theatres of operations: Aleutian Islands; Philippine Islands. Citations, decorations: American Defense Medal; Philippine Liberation Medal; Asiatic-Pacific Medal; Victory Medal. Discharged on May 28, 1946 (38 months active duty), with rank of Lieutenant Commander. Re-entered practice on April 1, 1946, in York, Nebr.

OTTO A. KOSTAL

Hastings, Nebr.

Born in Potter County, Pa., March 5, 1899. Graduated from University of Nebraska College of Medicine, 1923. Internships and Residencies: Methodist Hospital, 1923-24; Gorgas Memorial Hospital, Canal Zone, Panama, 1924-25. Post graduate training prior to enlistment: Harvard University, College of Medicine: Cardiology, 1937. Date of enlistment: Jan. 1, 1944. Rank: Lieutenant Commander. First assignment: U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: Department of Cardiology, U. S. Naval Hospital, Shoemaker, Calif.; Ward Officer, Base 108, U. S. Naval Hospital, Hawaii; Medical Officer, Base 18, Guam; Senior Medical Officer, U. S. Receiving and Staging Center, Okinawa. Theatres of operations: American Theatre, Pacific Theatre. Discharged on April 14, 1946, with rank of Commander, MC, USNR. Re-entered practice on April 27, 1947, in Hastings.

EZRA EDWIN KOEBBE

Columbus, Nebr.

Born in Manchester, Mich., Oct. 27, 1890. Graduated from University of Michigan, 1915. Internship: Dollar Bay, Mich., 1916. Residencies: University of Michigan, 1916. Post graduate training prior to enlistment: Naval Medical School, 1917. Date of enlistment: Nov. 7, 1916. Rank: Lieutenant (j.g.). First assignment: Albany, N. Y. Subsequent major assignments: Atlantic Fleet, 1917-1919; U. S. Naval Hospital, Great Lakes, 1919-1922; U. S. Naval Hospital, Great Lakes, Chief E.E.N.T. Service, 1942-44 and 1945-46; U. S. Marine Corps Air Facility, 1944-45. Citations, decorations: Victory with Atlantic Fleet Clasp, World War I; U. S. Naval Reserve 20-year Medal; World War II Medal. Discharged on March 24, 1946, with rank of Captain (Medical Corps), U. S. Naval Reserve. Reentered practice in 1946 in Columbus.

ZENO NICHOLAS KORTH

Omaha, Nebr.

Born in Iowa, Nov. 12, 1898. Graduated from Creighton School of Medicine, June, 1925. Internship: St. Joseph Memorial Hospital, 1925-1926. Post graduate training prior to enlistment: Mayo Clinic, 1926 and 1927; Barnard Free Skin and Cancer, St. Louis, Mo., 1935. Date of enlistment: June 15, 1942. Rank: Major. First assignment: Chief of Dermatology, and Chief of Communicable Disease Section, Walter Reed General Hospital, Washington, D. C., June, 1942 to September, 1945. Subsequent major assignments: Instructor in Dermatology, Army Medical School, Army Medical Center, Washington, D. C., Aug. 1, 1942; Instructor in Dermatology in the School of Physiotherapy, Walter Reed General Hospital. Discharged on Sept. 7, 1945, with rank of Lieutenant Colonel. Re-entered practice in October, 1945, in Omaha.

JOSEPH KUNCL, JR.

Alliance, Nebr.

Born in Nebraska. Graduated from University of Nebraska School of Medicine, 1928. Internship and Residencies: University of Nebraska Hospital, Omaha, 1928-30. Date of enlistment: June 1, 1941. Rank: Captain. First assignment: Regimental Surgeon, 147 Engineer Regiment. Subsequent major assignments: Assistant Chief of Orthopedic Section, Tripler General Hospital, Honolulu; Chief Surgical Service, 165 Station Hospital, Kanai; Chief of Surgical Section, 147 General Hospital, Honolulu; Chief Surgical Service, 369 Station Hospital, Saipan. Theatres of operations: Hawaii and Saipan. Discharged on Sept. 25, 1945, with rank of Lieutenant Colonel. Re-entered practice on Oct. 1, 1945, in Alliance.

WILLIAM E. KELLEY

Omaha, Nebr.

Born in Omaha, Nebr., Jan. 5, 1914. Graduated from Creighton Medical School, 1937. Internship: St. Joseph's Hospital, Omaha, 1937-38. Post graduate training prior to enlistment: University of Pennsylvania Post Graduate School, Department of Dermatology-Syphilology, 1938-39. Date of enlistment: Sept. 25, 1942. Rank: First Lieutenant. First assignment: 97 Evacuation Hospital, Ward Officer. Subsequent major assignments: Remained with unit through entire period. Theatres of operations: American Theatre; ETO — England, France, Belgium, Germany. Discharged on Dec. 6, 1945, with rank of Captain. Re-entered practice on Febr. 1, 1946, in Omaha.

WILLIAM C. KENNER, JR.

Nebraska City, Nebr.

Born in Utica, Nebr., March 25, 1901. Graduated from University of Nebraska, 1924. Internship: Ancker Hospital, St. Paul, Minn., 1924-25. Date of enlistment: Aug. 25, 1942. Rank: Captain. First assignment: Fort MacArthur, San Pedro, Calif. Subsequent major assignments: Radiologist, 63rd Station Hospital, Australia; Assistant Radiologist, 4th General Hospital, Finchhaven, New Guinea; Radiologist, 58th Evacuation Hospital, Leyte, Cebu, Japan. Theatres of operations: Southwest Pacific. Inactive duty status: Terminal leave Dec. 3, 1945. Discharged on March 3, 1946, with rank of Major. Re-entered practice on Dec. 10, 1945, in Nebraska City.

FRANK J. KLABENES

Omaha, Nebr.

Born in Omaha, Nebr., May 31, 1913. Graduated from University of Nebraska, School of Medicine, June, 1938. Internship: Nebraska Methodist Hospital, Omaha, 1938-39. Date of enlistment: May 11, 1942. Rank: First Lieutenant. First assignment: 554 Signal A. W. Co., Camp Haan, Calif. Subsequent major assignments: Los Angeles Air Defense Wing; Moses Lake Army Air Base, Moses Lake, Wash.; Ephrata Army Air Base, Ephrata, Wash.; Walla Walla Army Air Base, Walla Walla, Wash. Theatres of operations: Continental U. S. Citations, decorations: American Defence Ribbon. Discharged on Febr. 19, 1946, with rank of Major. Graduate training after discharge: Broncho esophagoly, University of Illinois. Re-entered practice on April 1, 1946, in Omaha.

WILLIAM T. KEMP

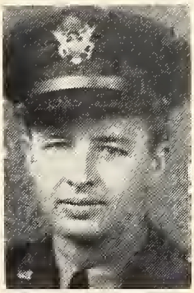
Omaha, Nebr.

Born in Norfolk, Nebr., Sept. 16, 1914. Graduated from Creighton University, 1940. Internship: St. Joseph's Hospital, Omaha, 1940-41. Date of enlistment: Nov. 2, 1944. Rank: First Lieutenant. First assignment: Veterans Administration in Salt Lake City. Citations, decorations: Victory and American theatre. Discharged on Jan. 21, 1947, with rank of Captain. Graduate training after discharge: Cook County Hospital, surgery. Re-entered practice in March, 1947, in Omaha.

J. WHITNEY KELLEY

Omaha, Nebr.

Born in Omaha, Jan. 18, 1909. Graduated from Creighton University, 1934. Internships and Residencies: St. Joseph's Hospital, Omaha, 1935; Psychiatry, Bellevue Hospital, New York City, 1946-47; Neurology, Bellevue Hospital, New York City, 1947-48. Date of enlistment: Aug. 28, 1942. Rank: First Lieutenant. First assignment: Spence Field, Moultrie, Ga. Subsequent major assignments: Randolph Field, School Aviation Medicine, San Antonio, Tex. Dyersburg Air Field, Dyersburg, Tenn.; Oran and Tunis, North Africa; Radar Unit, Salerno, Italy; 66 Fighter Squadron, Grosetto, Italy; Chief Psychiatrist, 12th Air Force, Florence, Italy. Theatres of operations: European, American. Citations, decorations: European Theatre, American Theatre, Victory. Discharged on Febr. 22, 1946, with rank of Captain. Graduate training after discharge: Neurology and Psychiatry, Bellevue Hospital, New York City. Re-entered practice on July 1, 1947.



JAMES F. KENNEDY

Alliance, Nebr.

Born in Alliance, Aug. 24, 1912. Graduated from Creighton University, 1935. Internships: St. Joseph Hospital, Omaha, 1935-36. Date of enlistment: March 13, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Crook, Nebr. Subsequent major assignments: Ward Surgeon, Station Hospital, Ft. Leonard Wood, Mo.; Chief of Surgery, Station Hospital, Ft. Crook, Nebr.; Ward Surgeon, Winter General Hospital; Chief General Surgeon, 314th Station General Hospital; Ward Surgeon, 107th Station Hospital. Theatres of operations: Southwest Pacific. Discharged on Febr. 11, 1946, with rank of Major. Re-entered practice on Jan. 1, 1947, in Alliance.

DONALDSON WRIGHT KINGSLEY

Hastings, Nebr.

Born in Minden, Nebr., March 16, 1899. Graduated from Harvard Medical School, 1926. Internship: Presbyterian Hospital, Philadelphia, 1926-28. Date of enlistment: May 6, 1942. Rank: Captain. First assignment: Station Hospital, Tucson, Ariz. Subsequent major assignments: Base Surgeon, A. A. Field, Dyersburg, Tenn., March, 1943 to October, 1945; Base Surgeon, Hunter Field, Ga., October, 1945 to December, 1945. Discharged on Dec. 8, 1945, with rank of Lieutenant Colonel. Re-entered practice in February, 1946, in Hastings, Nebr.

WILLIAM SHERWOOD KILGORE

York, Nebr.

Born in York, Nebr., Febr. 19, 1904. Graduated from Northwestern University Medical School, 1933. Internship and Residency: King's County Hospital, Brooklyn, N. Y., 1933; General Surgery, King's County Hospital, Brooklyn, N. Y., 1935. Date of commission: Sept. 16, 1942. Rank: Captain. First assignment: Station Hospital, Camp Swift, Tex. Entered on active duty at Fort Sam Houston, Tex. Subsequent major assignments: Commanding Officer, Station Hospital, Prisoner of War Camp, Tonkawa, Okla.; Commanding Officer, Station Hospital, Prisoner of War Camp, Monticello, Ark.; Department of Surgery, William Beaumont General Hospital, Fort Bliss, El Paso, Tex. American Theatre of Operations Oct. 12, 1942 to Febr. 1, 1946 (Eighth Service Command). Citations, decorations: Motu Proprio; Decoration of Commendatore Dell; Ordine Della Corona D'Italia, April 15, 1946. Discharged on Febr. 1, 1946, with rank of Lieutenant Colonel. Re-entered practice on March 23, 1946, in York, Nebr

WILLIAM DONALD KETTER

Falls City, Nebr.

Born in Jackson County, Kans., Nov. 12, 1908. Graduated from Creighton University, 1933. Internship: Mercy Hospital, Council Bluffs, Ia., 1933-34. Date of enlistment: Sept. 10, 1942. Rank: First Lieutenant, Medical Corps. First assignment: Medical Officer General, Army Collecting Co.; Co. A, 67th Medical Regiment, Camp Barkely, Tex. Subsequent major assignments: Commanding Officer of above assignment; Commanding Officer 661st Medical Clearing Co. Theatres of operations: E.T.O. Discharged on Dec. 29, 1945, with rank of Major. Re-entered practice on Dec. 30, 1945, in Falls City, Nebr.

RAYMOND G. LEWIS

Omaha, Nebr.

Born in Fairfield, Nebr., Oct. 30, 1904. Graduated from University of Nebraska College of Medicine, 1930. Internship and Residency: Long Island College Hospital, 1930-31; Long Island College Hospital, 1931-33. Date of enlistment: July 13, 1943. Rank: Lieutenant Commander. First assignment: U. S. Naval Training Center, San Diego, Calif. Subsequent major assignments: San Leandro Naval Hospital, Oakland, Calif.; U. S. Fleet Hospital, Samar, Philippine Islands. Theatres of operations: Southwest Pacific Area. Discharged on March 15, 1946, with rank of Commander. Re-entered practice on April 8, 1946, in Omaha, Nebr.

JAMES E. LEWIS

Scotia, Nebr.

Born in Turtle Creek, Pa., Oct. 12, 1916. Graduated from University of Pittsburgh, 1941. Internships: West Penn. Hospital, Pittsburgh, 1941-42. Date of enlistment: Aug. 1, 1942. Rank: First Lieutenant. First assignment: Medical Section, Hq. SOS ETOUSA. Subsequent major assignments: Med. Sec., MBS, NATOUSA; Medical Section, NACS, AMET; Medical Section, AFHQ, Italy. Theatres of operations: European, Mediterranean. Discharged on March 23, 1946, with rank of Major. Re-entered practice on April 1, 1947, in Scotia.

ROBERT S. LONG

Omaha, Nebr.

Born in Cowles, Nebr., Febr. 25, 1916. Graduated from University of Nebraska College of Medicine, 1940. Internships and Residencies: Boston City Hospital, 1941 to 1942. Date of enlistment: July 9, 1942. Rank: First Lieutenant. First assignment: Station Hospital, Army Air Base, Fort Worth, Tex. Subsequent major assignments: Station hospital, Greensboro, N. C., Army Air Forces Basic Training Center; 98th General Hospital, European Theater of Operations. Theatres of operations: European—England, France, Germany. Discharged on May 9, 1946, with rank of Major. Graduate training after discharge: Fellowship in Medicine, Lahey Clinic, Boston, Mass. Re-entered practice on June 1, 1947, in Omaha.

HENRY J. LEHNHOFF, JR.

Omaha, Nebr.

Born in Lincoln, Sept. 13, 1911. Graduated from Northwestern University, 1937. Internship: Kings County Hospital, Brooklyn, 1939. Residency: Fellowship in Medicine, Mayo Clinic, Rochester, Minn., 1939-42. Date of enlistment: March 13, 1942. Rank: First Lieutenant. First assignment: Lawson General Hospital, Atlanta, Ga. Subsequent major assignments: Chief Medical Service, Lawson General Hospital, Atlanta, Ga. Citations, decorations: Army Commendation Ribbon (1946). Discharged on March 31, 1946, with rank of Lieutenant Colonel. Entered practice on April 15, 1946, in Omaha.

JOSEPH A. LONGO

Omaha, Nebr.

Born in Omaha, Nebr., Jan. 30, 1914. Graduated from Creighton Medical School, June, 1937. Internship: St. Catherine's Hospital, July, 1937. Date of enlistment: Dec. 9, 1940. Rank: First Lieutenant. First assignment: Station Hospital, Fort Des Moines. Subsequent major assignments: Medical Officer in charge of induction board, Fort Crook, Nebr.; Post Surgeon, POW Camp, Algona, Iowa; Hospital Train Commander, Europe; Executive Officer, 167th General Hospital, France. Theatres of operations: European Theatre. Citations, decorations: Bronze Star (Battle of the Bulge). Discharged on May 4, 1946, with rank of Major. Re-entered practice in May, 1946, in Omaha, Nebr.

EARL F. LEININGER

McCook, Nebr.

Born in Greeley, Nebr., Oct. 22, 1897. Graduated from University of Nebraska College of Medicine, June 4, 1923. Internship: Wise Memorial Hospital. Omaha, 1923. Post graduate training prior to enlistment: University of Kansas, Mayo Clinic. Date of enlistment: Oct. 1, 1918. Rank: Candidate C.I.O.T.S. World War II: April 8, 1942. Rank: Lieutenant Commander, Medical Corps, U.S.N.R. Subsequent major assignments: Oct. 1, 1918 to Dec. 1, 1918—Candidate C.I.O.T.S., Camp McArthur, Waco, Tex.; Lieutenant Commander, Medical Corps, U.S.N.R., U. S. Naval Hospital, San Diego, Calif.; U. S. Marine Corps, Camp Elliott, Calif. Discharged on Dec. 8, 1942, with rank of Lieutenant Commander, Medical Corps, U.S.N.R. Re-entered practice on Febr. 4, 1943, in McCook, Nebr.

VICTOR E. LEVINE

Omaha, Nebr.

Born in Russia, Aug. 4, 1891. Graduated from Creighton University School of Medicine, 1928. Date of enlistment: Aug. 12, 1942. Rank: Major. First assignment: Medical Inspector, Halloran General Hospital, Staten Island, New York. Subsequent major assignments: Executive Officer, Northwestern Service Command Medical Laboratory, Edmonton, Alberta, Can.; Commanding Officer, Ninth Service Command Medical Laboratory, Fort Lewis, Wash.; Commanding Officer, Ninth Service Command Medical Laboratory, Presidio of Monterey, Calif. Citations, decorations: Commendation from Headquarters, Second Service Command for meritorious service in connection with the instruction of medical officers on treatment of chemical warfare casualties; Unit Citation from Surgeon General, War Department, to members of the Ninth Service Command Medical Laboratory at the Presidio of Monterey, Calif., for meritorius service. Discharged on March 6, 1946, with rank of Lieutenant Colonel. Returned to post of Professor of Biochemistry and Nutrition, Creighton University School of Medicine, March, 1946.

GEORGE J. LYTTON

Norfolk, Nebr.

Born in Vincennes, Ind., June 6, 1915. Graduated from College of Medicine, University of Nebraska, March, 1943. Internship: Wm. J. Seymour Hospital, Eloise, Mich., 1943. Date of enlistment: Jan. 5, 1944. Rank: First Lieutenant. First assignment: McCaw General Hospital, Walla Walla, Wash. Subsequent major assignments: 61st General Hospital, 82nd Airborne Division. Theatres of operations: ETO (England, France, Belgium, The Netherlands, Germany). Discharged on March 15, 1946, with rank of Captain. Graduate training after discharge: Now serving Residency in Psychiatry, Norfolk State Hospital to present date.

HAROLD C. LUETH

Omaha, Nebr.

Born in Chicago, Ill., July 24, 1904. Graduated from Northwestern University Medical School, 1929. Internships and Residencies: Cook County Hospital, 1930-31; Cook County Hospital, 1931-32. Date of enlistment: Oct. 1, 1940. Rank: Captain. First assignment: Medical Instructor, Illinois Military Area, Chicago, Ill. Subsequent major assignments: Chief Medical Service, Fort Sheridan Station Hospital; Surgeon General's Liaison Officer to AMA; Chief Classification Branch, Office of Surgeon General. Citations, decorations: Army Commendation Medal. Discharged on Jan. 22, 1946, with rank of Colonel. Re-entered practice in January, 1946, in Evanston, Ill. Came to Omaha as Dean of Medical College, University of Nebraska, September, 1946.

HOWARD E. LISTON

Elmwood, Nebr.

Born in Omaha, Nebr., Sept. 11, 1920. Graduated from University of Nebraska College of Medicine, Sept. 23, 1944. Internships: Presbyterian Hospital, Denver, Colo. Date of enlistment: July 6, 1945. Rank: First Lieutenant. First assignment: USAGH, Camp Carson, Colo. Subsequent major assignments: Camp Atterbury, Ind.; 153rd Station Hospital, Batangas, P.I. Theatre of operations: Philippines. Discharged on Jan. 26, 1947, with rank of Captain. Re-entered practice on Jan. 1, 1947, in Elmwood, Nebr.

FRED PEYTON LONG

Lincoln, Nebr.

Born in Missouri, March 22, 1904. Graduated from University of Tennessee, 1930. Internships: City Hospital, St. Louis, Mo., 1930-31. Residency: State Hospital No. 4, Farmington, Mo., 1931-33. Post graduate training prior to enlistment: University of Michigan School of Public Health, 1937. Date of enlistment: Oct. 27, 1941. Rank: First Lieutenant. First assignment: Station Hospital, Fort Riley, Kan., two months. Subsequent major assignments: Medical Inspector, Camp Crowder, Mo., 15 months; Island Malariologist, Efate (New Hebrides), 7 months; Island Malariologist, Guadalcanal (Solomons), 17 months; Chief of Preventive Medicine, Office of the Surgeon Hdq., ASCOMO (Philippines and Japan), 6 months. Theatres of operations: South Pacific, West Pacific (Philippines and Japan). Citations, decorations: Bronze Star Medal. Discharged on March 16, 1946, with rank of Lieutenant Colonel. Graduate training after discharge: University of Michigan, School of Public Health—one semester, 1947; degree Master of Public Health. Re-entered State Department of Health, Febr. 9, 1946.

JOHN RALPH LOUDON

Lincoln, Nebr.

Born in Chapman, Kan., Dec. 20, 1903. Graduated from Northwestern University Medical School, 1929. Internship: Aucker Memorial Hospital, St. Paul, Minn., 1928-29. Post graduate training prior to enlistment: Northwestern, 1935. Date of enlistment: Dec. 19, 1942. Rank: Captain. First assignment: MRD, Billings General Hospital; Fort Harrison, Indianapolis, Ind. Subsequent major assignments: 116th Station Hospital in parallel training at Ft. Leonard Wood, Mo. Theatres of operations: Southwest Pacific; Brisbane, Australia; Port Moresby; Leyte, P. I. Citations, decorations: Asiatic-Pacific Service Medal with 2 Battle Stars; World War II Victory Medal with 1 Star; Philippine Liberation Ribbon with 1 Star; Meritorious Service Unit Plaque. Discharged on March 15, 1946, with rank of Major. Re-entered practice on Jan. 1, 1947, in Lincoln.

ISAIAH LUKENS

Tekamah, Nebr.

Born in Tekamah, Nebr., March 15, 1903. Graduated from University of Nebraska, Aug. 24, 1928. Internship: Clarkson Hospital, Omaha, 1928. Date of enlistment: July 24, 1942. Rank: Captain. First assignment: 15th Cavalry, Medical Detachment. Theatres of operations: ETO. Citations, decorations: American Theatre Service Medal; European-African-Middle Eastern Service Medal; Bronze Star Medal; World War II Victory Medal. Discharged on March 18, 1947, with rank of Major. Re-entered practice in April, 1947, in Tekamah, Nebr.

ROSCOE PAUL LUCE

Fairbury, Nebr.

Born in Union, Nebr., March 2, 1900. Graduated from University of Nebraska, 1927. Internships: University of Nebraska Hospital, Omaha, 1927-28; Instructor in Medicine, University of Michigan, 1929-31. Date of enlistment: May 22, 1944. Rank: Lieutenant Commander (Medical Corps), USNR. First assignment: Great Lakes Training Center, Chicago, Ill. Subsequent major assignments: Fleet Hospital 103, Guam, 1944-45; Senior Medical Officer, Truk Atoll, 1946. Theatres of operations: Central Pacific. Discharged on April 24, 1947, with rank of Lieutenant Commander (Medical Corps), USNR. Re-entered practice on April 5, 1947, in Fairbury, Nebr.

KENNETH F. McDERMOTT

Grand Island, Nebr.

Born in Calloway, Nebr., Febr. 10, 1907. Graduated from University of Nebraska, 1935. Internship: Douglas County Hospital, Omaha; 1935-36. Date of enlistment: November, 1942. Rank: Lieutenant. First assignment: U. S. Naval Training Station, Farragut, Idaho. Subsequent major assignments: Argus 8, South Pacific; U.S.N. Medical School, Pensacola, Fla., Designated Flight Surgeon; U.S.N.A.S., Tillamook, Ore., Flight Surgeon; CASU 34, South Pacific, Flight Surgeon. Theatres of operations: American, Pacific. Discharged on Febr. 18, 1946, with rank of Lieutenant Commander. Re-entered practice in February, 1946, in Grand Island.

JOHN L. McFEE

Ogallala, Nebr.

Born in Iowa, March 21, 1916. Graduated from University of Nebraska, 1941. Internships: Pierce County Hospital, Tacoma, Wash., 1941-42. Date of enlistment: Aug. 1, 1942. Rank: First Lieutenant. First assignment: 1st Medical Regiment, Fort Ord, Calif. Subsequent major assignments: 1st Medical Regiment, Fort Ord, Calif.; 656 Medical Clearing Co., Regiment Surgeon, Platoon Commander—General Surgeon MOS 3150. Theatres of operations: Southwest Pacific, New Guinea, Philippines, Japan. Citations, decorations: Bronze Star ribbon, Occupational ribbon (Japan), Southwest Pacific ribbon, Philippine Liberation ribbon, American Defense ribbon. Discharged on March 27, 1946, with rank of Major. Entered practice February, 1946, in Ogallala.

CHARLES W. McLAUGHLIN, JR.

Omaha, Nebr.

Born in Washington, Ia., Febr. 3, 1906. Graduated from Washington University School of Medicine, St. Louis, Mo., 1929. Internships: Montreal General Hospital, Montreal, Pa., 1929-30. Residencies: Res. Pathology, Montreal General Hospital, 1930-31; Fellowship in Surgery, University of Pennsylvania, 1930-31. Post graduate training prior to enlistment: Traveling Fellow, University of Edinburgh, Scotland, 1934-35. Date of enlistment: September, 1942. Rank: Lieutenant Commander, USNR. First assignment: U. S. Naval Training Station, Great Lakes, Ill., Chief Surgery, McIntire Dispensary until September, 1943. Subsequent major assignments: Chief Surgeon, U. S. Naval Hospital, Corpus Christi, Tex., September, 1943 to March, 1944; Surgeon, USS Essex, W-9, April, 1944 to October, 1945. Theatres of operations: South and West Pacific, with 3rd and 5th Fleets (Carrier Forces); all offensive actions from April, 1944, till surrender at Tokyo. Citations, decorations: Navy Commendation ribbon; Presidential Unit Citation. Discharged in November, 1945, with rank of Commander (MC), USNR. Re-entered practice on Dec. 1, 1945, in Omaha.

CLINTON C. MILLETT

Omaha, Nebr.

Born in Nebraska. Graduated from University of Nebraska, 1936. Internship and Residency: Douglas County Hospital, Omaha, 1937, and Eitel, Minneapolis, Minn., 1938. Date of commission: Sept. 17, 1942. Rank: Captain. First assignment: Camp Barkeley, Tex. Subsequent major assignments: 172nd General Hospital, Brigham City, Utah. Theatres of operations: India-Burma-China. Citations, decorations: Asiatic Pacific Theatre with Bronze Star for India-Burma Campaign; Bronze Star for Central Burma Campaign; Bronze Star Medal. Discharged on Dec. 29, 1945, with rank of Lieutenant Colonel. Re-entered practice on Nov. 1, 1945, in Omaha.

G. KENNETH MUEHLIG

Omaha, Nebr.

Born in Ann Arbor, Mich., Dec. 14, 1915. Graduated from University of Michigan Medical School, 1940. Internship: Harper Hospital, Detroit, Mich., 1940-41. Residencies: Neuropsychiatric Institute, University Hospital, Ann Arbor, Mich. Date of enlistment: September, 1942. Rank: First Lieutenant (Medical Corps). First assignment: 53rd Station Hospital. Theatres of operations: ETO, Africa, Italy, France, and Germany. Citations, decorations: Campaign Stars—Rome-Arno Battle, Northern Appennines, Rhineland, Central Europe. Discharged on Oct. 1, 1945, with rank of Captain (Medical Corps). Graduate training after discharge: Instructor, Neurosychiatric Institute, University Hospital, Ann Arbor, Mich., from October, 1945 to July, 1946. Re-entered practice on July 1, 1946, in Omaha.

PAUL N. MORROW

Omaha, Nebr.

Born in Fremont, Nebr., Sept. 27, 1907. Graduated from University of Nebraska, 1932. Internship: Temple University Hospital, Philadelphia, 1932-34. Residency: Philadelphia Hospital for Contagious Diseases, 1934-39. Post graduate training prior to enlistment: Children's Memorial Hospital, Chicago, 1939. Date of enlistment: Nov. 23, 1942. Rank: Captain. First assignment: Chief, Contagious Disease Wards, Valley Forge General Hospital. Subsequent major assignments: Medical Officer, 105th Evacuation Hospital; Medical Officer, 69th Evacuation Hospital. Theatres of operations: ETO (Rhineland and Central Europe). Citations, decorations: Bronze Star Medal, American Theatre Service Medal, Victory Medal with 1 Star. Discharged on March 25, 1946, with rank of Major. Re-entered practice on Febr. 1, 1946, in Omaha.

RALPH C. MOORE

Omaha, Nebr.

Born in Omaha, Nov. 23, 1911. Graduated from University of Nebraska, June, 1937. Internship and Residency: Peter Bent Brigham Hospital, Boston, 1937-42. Date of enlistment: Jan. 10, 1942. Rank: First Lieutenant. First assignment: Assistant Radiologist, 5th General Hospital, Jan. 10, 1942 to April, 1942. Subsequent major assignments: Assistant Radiologist, 105th General Hospital, April, 1942 to June, 1945; Personnel Officer, 105th General Hospital, April, 1942 to December, 1942. Theatres of operations: Southwest Pacific—Australia and New Guinea (Biak, N.E.I.). Discharged on Febr. 17, 1946, with rank of Major. Entered practice on Dec. 1, 1945, in Omaha.

PAUL J. MARTIN

Omaha, Nebr.

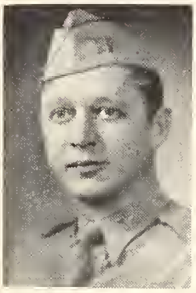
Born in Omaha, Nebr., Aug. 27, 1907. Graduated from Creighton University Medical School, 1936. Internship: Douglas County Hospital, Omaha, 1936. Date of enlistment: Sept. 21, 1942. Rank: First Lieutenant. First assignment: 23rd Field Hospital, Camp White, Ore. Subsequent major assignments: Barnes General Hospital, Vancouver, Wash.; Bruns General Hospital, Santa Fe, N. M. Discharged on May 11, 1946, with rank of Captain. Re-entered practice on June 1, 1946, in Omaha.

JOHN T. McGREER, JR.
Lincoln, Nebr.

Born in St. Louis, Mo., May 31, 1907. Graduated from University of Nebraska, College of Medicine, June, 1932. Internship and Residencies: Montreal General Hospital, Montreal, P. Q., 1932; University Hospital, Ann Arbor, Mich., 1934-35. Post graduate training prior to enlistment: University Hospital, Ann Arbor, Mich., 1936-39. Date of enlistment: Febr. 9, 1943. Rank: Captain. First assignment: M.R.P., M.R.T.C., Camp Grant, Ill. Subsequent major assignments: Fitzsimons General Hospital, Denver, Colo.; Station Hospital, Camp Campbell, Ky.; Newton D. Baker General Hospital, Martinsburg, W. Va.; 239th General Hospital, Camp Barkeley, Tex. Theatres of operations: ETO—Chalons Sur Marne and Paris, France. Citations, decorations: European Theatre Service Ribbon with one Battle Star; American Theatre Ribbon; World War II Victory Medal. Discharged on June 20, 1946, with rank of Major. Re-entered practice on Oct. 1, 1946, in Lincoln, Nebr.

J. MILTON MARGOLIN
Omaha, Nebr.

Born in Sioux City, Ia., Oct. 3, 1908. Graduated from University of Nebraska, June, 1932. Internships: Immanuel Hospital, Omaha, 1932-33. Date of enlistment: June 26, 1942. Rank: First Lieutenant. First assignment: 6th Armored Division. Subsequent major assignments: 165 Quartermaster Battalion (Mobile). Theatres of operations: American, European. Citations, decorations: American Theatre Ribbon, EAME Theatre Ribbon with 2 Bronze Battle Stars; World War II Victory Medal; 2 Overseas Service Bars. Discharged on Jan. 18, 1946, with rank of Captain. Re-entered practice on Jan. 1, 1946, in Perry, Ia. Moved to Omaha, Febr. 18, 1946.



ROBERT J. MORGAN
Alliance, Nebr.

Born in Parker, S. D., May 23, 1912. Graduated from University of Nebraska, 1940. Internship: Presbyterian Hospital, Denver, Colo., 1941. Date of enlistment: Sept. 24, 1943. Rank: First Lieutenant. First assignment: A.A.F., Geiger Field. General Medical Office. Subsequent major assignments: Flight Surgeon and Parachutist, 8th Emergency Rescue Squad, China Theatre. Theatres of operations: C. B. I. Discharged on June 27, 1946, with rank of Major. Re-entered practice on July 15, 1947, in Alliance.

HORACE V. MUNGER
Lincoln, Nebr.

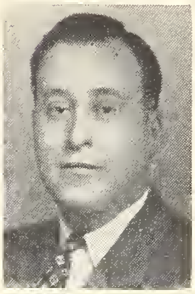
Born in Eagle, Nebr., March 12, 1912. Graduated from University of Nebraska, 1937. Internship: Bellevue Hospital, New York City, 1938-40. Residency: Turner Urological Institute, 1940. Date of enlistment: October, 1940. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Des Moines. Subsequent major assignments: Medical Field Service School, Carlisle Barracks; Medical Dept. Replacement Training Center, Camp Grant, Ill.; Medical Det. 85th Infantry Division Artillery, Camp Shelby, Miss.; Regional Hospital, Ft. Belvoir, Va. Theatres of operations: North Africa, Italy. Citations, decorations: Bronze Star, Rome-Arno Campaign; Bronze Star, North Appenines Campaign. Discharged in January, 1946, with rank of Major. Re-entered practice in November, 1945, in Urology, Lincoln, Nebr.

ROY M. MATSON
Wayne, Nebr.

Born in Bertrand, Nebr., Sept. 5, 1905. Graduated from University of Nebraska College of Medicine, 1938. Internship and Residency: Columbia Hospital, Milwaukee, Wisc., 1938-40. Date of enlistment: National Guard, Oct. 31, 1940. Rank: First Lieutenant. First assignment: 110th Medical Regiment, 35th Infantry Division. Subsequent major assignments: Surgeon Sp. Troops, 35th Infantry Division; C. O., 110th Medical Battalion, 35th Infantry Division; Regiment Surgeon, 423 Infantry Regiment, 106 Infantry Division. Theatres of operations: E.T.O. Citations, decorations: Bronze Star. Discharged on Jan. 9, 1946, with rank of Major. Graduate training after discharge: University of Minnesota. Re-entered practice on May 9, 1947, in Wayne, Nebr.

DANIEL POLLARD McCLEERY
Beatrice, Nebr.

Born in Lawrence, Nebr., May 6, 1909. Graduated from University of Nebraska, 1934. Internship and Residency: Touro Infirmary, New Orleans, 1934; Touro Infirmary, New Orleans, 1935-36; Chicago Lying-in, 1937-38. Date of enlistment: May, 1943. Rank: First Lieutenant. First assignment: Barnes General Hospital, Vancouver, Wash. Subsequent major assignments: 9th General Hospital. Theatres of operations: Southwest Pacific. Discharged in November, 1945, with rank of Major. Re-entered practice on Jan. 1, 1946, in The Beatrice Medical Group, Beatrice, Nebr.



HENRY D. MYERS
Schuyler, Nebr.

Born in Howells, Nebr., Dec. 25, 1912. Graduated from University of Nebraska, 1937. Internship and Residency: Minneapolis, 1937-39. Date of enlistment: Jan. 25, 1941. Rank: First Lieutenant. First assignment: Ward Officer. Subsequent major assignments: Assistant Executive Officer; Chief of Administration and Dispensary Service; Hospital Inspector; Chief Surgeon of Group, 2 years overseas with Ninth Air Force. Theatres of operations: ETO — England and France. Citations, decorations: Bronze Star. Discharged on Jan. 14, 1945, with rank of Lieutenant Colonel. Entered practice on Dec. 1, 1945, in Schuyler, Nebr.

WILLIAM MAYO McGRATH
Grand Island, Nebr.

Born in Grand Island, Nebr., Aug. 20, 1906. Graduated from Rush Medical College, 1931. Internship and Residency: Presbyterian Hospital, Chicago, 1931-1933; Presbyterian Hospital, Chicago, 1933-35; Attending Staff, Presbyterian Hospital, Chicago, 1935-37. Date of enlistment: April 19, 1943. Rank: Lieutenant (Medical Corps), VS, USNR. First assignment: Naval Training Station, San Diego, Calif. Subsequent major assignments: 42nd Naval Construction Battalion, Adak, Ta.; Naval Hospital, San Diego; U. S. Naval Group, China. Theatres of operation: Adak, Aleutian Islands, China. Discharged on Febr. 14, 1946, with rank of Lieutenant Commander (Medical Corps) VS, USNR. Re-entered practice on March 1, 1946, in Grand Island, Nebr.

SAMUEL T. MANGIMELLI
Omaha, Nebr.

Born in Omaha, Nebr., May 15, 1915. Graduated from Creighton University, June, 1939. Internship: St. Paul's Hospital, Dallas, Tex., 1939-40. Date of enlistment: July 1, 1940. Rank: First Lieutenant. First assignment: Fort Sam Houston, Tex. Subsequent major assignments: Panama Canal Zone; Trinidad, B.W.I.; Dutch Guiana, S. A.; Texas; England; Rheims, France; Germany. Theatres of operations: European Theatre. Discharged on Dec. 29, 1945, with rank of Major. Graduate training after discharge: New York Post Graduate Medical School; Margaret Hague Hospital. Re-entered practice in April, 1947, in Omaha.

ALTON JOYCE MERRICK
Fremont, Nebr.

Born in Shelby, Nebr., Febr. 12, 1907. Graduated from Rush, 1933. Internship: Kansas City General Hospital, 1933-34. Date of enlistment: Sept. 18, 1942. Rank: First Lieutenant. First assignment: 603rd C.A. Battalion, Burbank, Calif. Subsequent major assignments: 16th Tank Division, Camp Chaffee, Ark., 1944; 81st F.A. Battalion, Sept., 1944; 327th Station Hospital, Aug., 1945. Theatres of operations: E.T.O. — France, Belgium, Germany. Discharged in October, 1945, with rank of Captain. Graduate training after discharge: University of Minnesota. Re-entered practice in April, 1947, in Fremont, Nebr.

DONAL HOBART MORGAN
McCook, Nebraska

Born in Danbury, Nebr., Sept. 16, 1897. Graduated from University of Nebraska College of Medicine, June, 1921. Internship and Residency: Wise Memorial, Omaha, Nebr., 1921; Santo Tomas Hospital, Rep. De., 1922. Post graduate training prior to enlistment: University of Vienna, 1929-30. Date of active commission: April, 1942. Rank: Lieutenant Commander. First assignment: U. S. Naval Hospital, Great Lakes. Subsequent major assignments: Senior Medical Officer, Naval Air Technical Training Center, Chicago; Senior Medical Officer, USS Haskell. Theatres of operations: Pacific. Released to inactive duty on Jan. 22, 1946, with rank of Commander. Reentered practice immediately.

HAMILTON H. MORROW
Fremont, Nebr.

Born in Fremont, Nebr., Sept. 10, 1906. Graduated from University of Nebraska College of Medicine, June, 1932. Internship: Allegheny General Hospital, Pittsburgh, Pa., 1932-33. Date of enlistment: April 29, 1942. Rank: First Lieutenant. First assignment: A.A.F. Field Hospital, Key Field, Merridian, Miss. Subsequent major assignments: Battalion Surgeon, 818 Engr. Avn. Battalion. Theatres of operations: ETO—England, 24 months; Continent, 16 months. Discharged on Febr. 7, 1946, with rank of Captain (Major—Nov., 1946). Graduate training after discharge: University of Tennessee College of Medicine. Re-entered practice in February, 1946, in Fremont, Nebr.

PAUL D. MARX
Lincoln, Nebr.

Born in Lincoln, Nebr., July 8, 1913. Graduated from University of Nebraska, June, 1937. Internship: St. Louis Jewish Hospital, 1937-38. Date of enlistment: Nov. 28, 1940. Rank: First Lieutenant. First assignment: Medical Replacement Training Center, Camp Grant, Ill. Subsequent major assignments: 1st Cavalry Division, 153 F. A. Surg.; 8th Armored Division, C. O. 78 Medical Battalion. Theatres of operations: European. Citations, decorations: Bronze Star. Discharged on March 3, 1946, with rank of Lieutenant Colonel. Graduate training after discharge: Refresher Course, Electracardiography, New York Polyclinic Post Grad. Section. Re-entered practice in June, 1946, in Michael Reese Hospital.

N. RICHARD MILLER
Lincoln, Nebr.

Born in Lincoln, Nebr., Nov. 11, 1905. Graduated from University of Nebraska, 1932. Internships: N.P.B.A. Hospital, St. Paul, 1932-33. Residency: Surgery, 1933-34. Date of enlistment: June, 1942. Rank: First Lieutenant. First assignment: Ft. Des Moines. Subsequent major assignments: Camp Dodge, Ia.; Prisoner of War Camp, Atlanta, Ga.; India-Burma-Theatre, 43 Post Surg. Hospital; China Theatre, 43 Post Surg. Hospital. Theatres of operations: China-Burma-India. Citations,. decorations: Unit Citation (Pres.). Discharged on Febr. 18, 1946, with rank of Major. Re-entered practice in February, 1946, in Lincoln.

SAMUEL DOUGLAS MILLER
Lincoln, Nebr.

Born in Elizabethtown, Ill., Febr. 21, 1907. Graduated from Northwestern University Medical School, 1933. Internship: Illinois Central Hospital, Chicago, Ill., 1932. Residency: Copley Hospital, Aurora, Ill., 1933. Date of enlistment: Febr. 4, 1944. Rank: First Lieutenant. First assignment: Carlisle Barracks, Pa. Subsequent major assignments: Camp Van Dorn, Miss.—Surgical Service, Anesthesia and General Surgery; William Beaumont General Hospital, El Paso, Tex., Anesthesia Service. Discharged on Oct. 15, 1945, with rank of First Lieutenant. Re-entered practice on Nov. 1, 1947, in Lincoln, Nebr.

HERSCHEL BURDETTE MORTON
Lincoln, Nebr.

Born in Seward, Nebr., Sept. 26, 1898. Graduated from University of Nebraska Medical School, 1925. Internships: University of Nebraska Hospital, Omaha, Nebr., February, 1925 to August, 1926. Residencies: Surgical Fellowship, Mayo Foundation, 1928-31. Date of enlistment: Nov. 23, 1942. Rank: Lieutenant Commander, Medical Corps, U.S.N.R. First assignment: General and Gastrointestinal Surgery, Naval Hospital, Farragut, Idaho. Subsequent major assignments: General Surgery, Fleet Hospital 108, Guadalcanal; General Surgery, Hospital Ship U.S.S. L.S.T. 464. Theatres of operations: Solomon Islands, Philippine Islands, Korea, China. Discharged on Febr. 17, 1946, with rank of Commander.

ALBERT V. MURPHY
Omaha, Nebr.

Born in Washington, D. C., Sept. 27, 1905. Graduated from Creighton Medical School, June 4, 1932. Internships: St. Francis Hospital, Jersey City, N. J., 1936-38. Residency: Graduate Hospital, Philadelphia, Pa., 1939-40. Post graduate training prior to enlistment: Graduate School of Medicine, Philadelphia, Pa., Internal Medicine, 1938-39. Date of enlistment: Febr. 2, 1941. Rank: First Lieutenant, Medical Corps. First assignment: Assistant Chief Medical Service, Ft. Leonard Wood, Mo. Subsequent major assignments: Registrar, Station Hospital, Ft. Leonard Wood, Mo.; Post Surgeon, Fort Omaha, Omaha, Nebr.; Executive Officer, U. S. General Hospital, Camp Carson, Colo.; Post Surgeon, Camp Logan, Colo. Discharged on April 2, 1946, with rank of Lieutenant Colonel, Medical Corps. Re-entered practice on Jan. 1, 1946, in Internal Medicine.

FLOYD C. NELSON

Omaha, Nebr.

Born in Nebraska, 1906. Graduated from University of Nebraska Medical College, 1932. Internship and Residency: University of Nebraska Hospital, 1932-1933. Date of enlistment: March 10, 1943. Rank: Captain. First assignment: Carlisle Barracks. Subsequent major assignments: Bowman Field, Louisville, Ky.; Army School of X-ray, Memphis, Tenn.; George Field, Ill.; Lawrenberg-Maxton, No. Car.; Sedalia Army Air Base, Sedalia, Mo.; School of Aviation Medicine, Randolph Field, Tex. Discharged on March 21, 1946, with rank of Captain. Re-entered practice on April 2, 1946, in Omaha.

VICTOR DELMER NORALL

Lexington, Nebr.

Born in Overton, Nebr., Jan. 22, 1905. Graduated from University of Nebraska College of Medicine, Febr. 1, 1929. Internships and Residencies: Methodist Hospital, Omaha; Clinical Pathology, University Hospital, Omaha, Nebr., 1929 to 1931. Date of enlistment: Officers Reserve Corps, Active Duty, March 17, 1941. Rank: First Lieutenant. First assignment: Medical Field Service School, Carlisle Barracks. Subsequent major assignments: 4th Armored Division (46th Armored Medical Battalion); Tropical and Military Medicine, Army Medical School, Washington, D. C.; Medical Detachment Hq. Co., XX Corps. Theatres of operations: ETO (England, France, Germany, and Austria). Citations, Decorations: Bronze Star Medal, Croix de Guerre with Silver Star, European-African-Middle Eastern Service Medal, American Defense Service Medal and Victory Medal. Discharged on Aug. 20, 1945, with rank of Major. Re-entered practice on Oct. 1, 1945, in Lexington, Nebr.

EDWARD CHARLES NEMEC

Omaha, Nebr.

Born in Omaha, Nebr., May 5, 1914. Graduated from Creighton Medical School, 1938. Internship: Providence Hospital, 1938-39. Date of enlistment: March 21, 1947. Rank: First Lieutenant. First assignment: Station Hospital, Ft. Knox, Ky. Subsequent major assignments: 742nd Tank Battalion; 752nd Tank Battalion; 364th Infantry. Theatres of operations: Aleutian Islands. Citations, decorations: Pre-Pearl Harbor Ribbon, American Theater Ribbon, Asiatic Pacific Theater Ribbon, Victory Medal. Discharged on November 19, 1945, with rank of Lieutenant Colonel. Re-entered practice on Jan. 2, 1946, in Omaha.

J. MARSHALL NEELY

Lincoln, Nebr.

Born in Elmwood, Nebr., Sept. 23, 1904. Graduated from University of Nebraska College of Medicine, 1930. Internships: University Hospital, Omaha; Ancker Hospital, St. Paul, Minn., 1930-32. Residency: Pathology, Ancker Hospital, St. Paul, Minn., 1932. Post graduate training prior to enlistment: Ann Arbor Radiology, 1933. Date of enlistment: Nov. 16, 1942. Rank: Lieutenant Commander. First assignment: Great Lakes Hospital. Subsequent major assignments: Sun Valley, Idaho; Shoemaker, Calif.; Guam. Theatres of operations: Guam and United States. Discharged on Dec. 28, 1945, with rank of Commander, USNR. Re-entered practice on Jan. 1, 1946, in Lincoln.

HAROLD N. NEU

Omaha, Nebr.

Born in Arcadia, Ia., Dec. 18, 1908. Graduated from Creighton University, 1935. Internship: Creighton Memorial St. Joseph's Hospital, 1935-36. Date of enlistment: May 15, 1941. Rank: First Lieutenant. First assignment: Ward Officer, Jefferson Barracks, Mo., Station Hospital. Subsequent major assignments: Chief of Medical Section, Jefferson Barracks, Mo., Station Hospital; Chief of X-ray, March Field Station Hospital; Chief of Medicine, Portland Army Air Base Station Hospital; Chief of Medical Service, 31st General Hospital, APO. Theatres of operations: American, Asiatic Pacific. Citations, decorations: World War II Victory Medal, Philippine Liberation Medal, Asiatic Pacific Service Medal, American Defense Service Medal, American Theatre Medal. Discharged on March 11, 1946, with rank of Colonel. Graduate training after discharge: New York Post Graduate Medical School, American College of Physicians Post Graduate Courses. Re-entered practice on April 1, 1946, in Omaha.

JUUL C. NIELSEN

Ingleside, Nebr.

(Also served in World War I)

Born in Denmark, May 31, 1896. Graduated from University of Nebraska, College of Medicine, 1926. Internships: Immanuel Hospital, Omaha, 1926-27. Residency: Norfolk State Hospital, 1928-29. Post graduate training prior to enlistment: Denver and Topeka, 1930 and 1938. Date of enlistment: September, 1942. Rank: Major. First assignment: Director of Mental Hygiene Clinic, Cavalry Replacement Training Center, Fort Riley, Kan. Discharged on Oct. 10, 1945, with rank of Major. Returned as Superintendent of Hastings State Hospital, Ingleside, Nebr., Oct. 11, 1945.

DONALD JAMES O'BRIEN

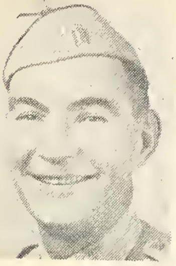
Omaha, Nebr.

Born in Council Bluffs, Ia., Jan. 3, 1902. Graduated from Creighton University College of Medicine, June, 1925. Internship: St. Catherine's Hospital, Omaha, Nebr., 1926. Post graduate training prior to enlistment: Cook County Post Graduate, 1942. Date of enlistment: Oct. 19, 1942. Rank: Lieutenant Commander. First assignment: U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: N. A. S., Coronado, Calif.; Senior Medical Officer, A.E.O.B., New Caledonia; Senior Medical Officer, A.R.O.U., Guam; U. S. Naval Hospital, Memphis, Tenn. Theatres of operations: United States; South and Central Pacific. Discharged on Jan. 6, 1946, with rank of Commander. Graduate training after discharge: Cook County, 1946 and 1947. Re-entered practice in May, 1946, in Omaha.

KENNETH ADELBERT OHME

Mitchell, Nebr.

Born in Arcadia, 1907. Graduated from University of Nebraska School of Medicine, 1934. Internship: M. E. Hospital, Omaha. Date of enlistment: March 17, 1944. Rank: Captain. First assignment: Chief of Septic Surgery. Subsequent major assignments: Assistant to Chief of Orthopedic Surgery. Discharged on Dec. 29, 1945, with rank of Captain. Re-entered practice on Dec. 1, 1945.



FRANCIS C. OBERT
Red Cloud, Nebr.

Born in Jewel County, Kan., Jan. 8, 1902. Graduated from Kansas University, 1934. Internship: Bethany Hospital, 1934-35. Date of enlistment: December, 1943. Rank: Captain. First assignment: Carlisle Barracks, Penn. Subsequent major assignments: 363 Medical Battalion; Post Surgeon, Fort Armstrong, T. H. Theatres of operations: Pacific. Discharged in April, 1946, with rank of Captain. Re-entered practice on May 11, 1946, in Red Cloud, Nebr.

PAUL BRYANT OLSSON
Lexington, Nebr.

Born in Lexington, Dec. 6, 1913. Graduated from University of Nebraska Medical School, 1938. Internship: Swedish Hospital, Seattle, Wash., 1938-39. Date of enlistment: Jan. 25, 1941. Rank: First Lieutenant. First assignment: Reception Center, Fort Leavenworth, Kansas, Dispensary Service. Subsequent major assignments: 184th Station Hospital, Kodiak, Alaska — General Surgery; Mayo General Hospital, Galesburg, Ill. — Vascular Surgery. Theatre of operations: Alaska. Citations, decorations: American Defense Ribbon; Asiatic Pacific Theatre Ribbon and Medal. Discharged on Febr. 22, 1946, with rank of Captain. Re-entered practice on Jan. 1, 1946, in Lexington, Nebr.

WILLIAM D. O'GORMAN
Omaha, Nebr.

Born in NuHey, New Jersey, Sept. 9, 1914. Graduated from St. Louis University, 1936. Internship and residencies: St. Vincent's Hospital, New York, N. Y., 1936-37; New York City Cancer Institute, New York, N. Y., 1938; Montana State Hospital, Warm Springs, Mont., 1939; New Jersey State Hospital, Greystone Park, N. J., 1939-41. Date of enlistment: Jan. 27, 1941. Rank: First Lieutenant. First assignment: 112th F. A., Bn. Surg.-Regt. Surg. Subsequent major assignments: Squadron Surgeon 85th Bomb Group (D); Chief, N. P. Section, Base Hospital, A.A.B., Harding Field, La.; Assistant, N. P. Section, Regional Hospital, A.A.B., Davis Monthan Field, Tucson, Ariz.; Assistant N. P., Director, A.A.F. School of Aviation Medicine, Randolph Field, Tex., Dept. of N. P. Theatre of operations: Continental United States. Citations, decorations: American Defense; American Theatre Campaign; Victory; Meritorious Service Unit Insignia. Discharged on April 3, 1946, with rank of Major. Graduate training after discharge: Neurology, Vaughn General Hospital, Hines, Ill. Re-entered practice on Aug. 1, 1946, in Omaha.

DONALD ROBERT OWEN
Omaha, Nebr.

Born in Omaha, Nebr., Febr. 5, 1893. Graduated from University of Nebraska, 1918. Internship: University of Nebraska (University Hospital), 1918-19. Date of enlistment: Aug. 12, 1942. Rank: Captain. First assignment: 34th Station Hospital. Theatres of operations: ETO and United States. Discharged on Febr. 24, 1946, with rank of Major. Re-entered practice in February, 1946, in Omaha.

ROBERT BRUCE PALMER
Lincoln, Nebr.

Born in Henrietta, Tex., Febr. 19, 1906. Graduated from University of Texas, 1931. Internship and Residency: City Hospital, Cleveland, O., (Dermatology and Syphilology), 1931 to 1935. Date of enlistment: June 7, 1942. Rank: Captain. First assignment: Medical Department, Replacement Pool, Fitzsimmons General Hospital. Subsequent major assignments: 2nd Field Hospital; 24th Portable Hospital; Base Sec. 3, Dispensary; Surgeon's Office, Base K. Theatres of operations: Southwest Pacific Area (Australia, New Guinea and Philippines). Discharged on Febr. 11, 1946, with rank of Lieutenant Colonel. Re-entered practice in June, 1946, in Lincoln, Nebr.

MAURICE LEWIS PEPPER
Omaha, Nebr.

Born in Pueblo, Colo. Graduated from University of Nebraska, 1936. Internship: Kansas City General Hospital, Kansas City, Mo., 1936-37. Date of enlistment: Oct. 13, 1942. Rank: First Lieutenant. First assignment: Medical Replacement Training Center, Camp Pickett, Va. Subsequent major assignments: Regional Hospital, Ft. Jackson, S. C.; 82nd Field Hospital. Theatre of operations: Pacific (Okinawa). Discharged on Oct. 7, 1945, with rank of Major. Re-entered practice on Oct. 2, 1945, in Omaha.

JOHN C. PETERSON
Lincoln, Nebr.

Born in Geneva, Nebr., Aug. 31, 1902. Graduated from University of Nebraska, 1928. Internships: Clarkson Memorial Hospital, 1928-29. Post graduate training prior to enlistment: E.E.N.T., 1929-30. Date of enlistment: July, 1942. Rank: Lieutenant Commander, Medical Corps, U.S.N.R. First assignment: Navy Yard, Bremerton, Wash. Subsequent major assignments: U. S. Naval Hospital, New Orleans. Discharged on Jan. 27, 1946, with rank of Commander (Medical Corps), U.S.N.R. Re-entered practice on Febr. 1, 1946, in Lincoln, Nebr.

JAMES I. PODLESAK
Lincoln, Nebr.

Born in Geneva, Nebr., Nov. 14, 1898. Graduated from Creighton University, June, 1927. Internships: Douglas County Hospital, St. Joseph Hospital, Omaha, 1927. Date of enlistment: August, 1942. Rank: Captain. First assignment: AAF. Subsequent major assignments: Hospital Ship Platoon; Chief of Surgery aboard U.S.H.S. Ernest Hinds. Theatres of operations: Pacific and ETO. Citations, decorations: Citation of Merit and 4 Battle Stars. Discharged on Jan. 15, 1946, with rank of Major. Re-entered practice in February, 1946, in Lincoln.

LLOYD E. RAGAN
U. S. Naval Air Station
Olathe, Kan.

Born in Seward, Nebr., 1896. Graduated from University of Nebraska, 1929. Internships: Immanuel Hospital, Omaha, Nebr., 1929-30. Date of enlistment: 1918 and 1945. Rank: Pvt., U. S. Army; Lieutenant Commander (Medical Corps), USNR. First assignment: 1918—3rd Regular Army Division for the entire war; 1945—U. S. Naval Special. Subsequent major assignments: Hospital, Glenwood Springs, Colo.; Senior Medical Officer, USS Astoria (CL-90); Senior Medical Officer, U. S. Naval Air Station, Olathe, Kan. Still in service.

ROBERT H. RASGORSHEK

Omaha, Nebr.

Born in Omaha, Nebr., Febr. 11, 1903. Graduated from University of Nebraska Medical College, 1928. Internship: Covenant Hospital, Omaha, 1928-29. Post graduate training prior to enlistment: University of Pennsylvania Post Graduate, 1929-30. Date of enlistment: September, 1942. Rank: Lieutenant Commander Medical Corps, USNR. First assignment: U. S. Naval Hospital, San Diego, Calif. Subsequent major assignments: Various Naval Stations on West Coast, U.S.A. Theatre of operations: Okinawa Campaign. Discharged on Febr. 27, 1946, with rank of Commander. Re-entered practice in January, 1946, in Omaha.

PAUL S. READ

Omaha, Nebr.

Born in Crested Butte, Colo., Dec. 9, 1898. Graduated from Nebraska University College of Medicine, June, 1926. Internship: Bishop Clarkson Memorial Hospital, 1926-27. Date of commission: July 11, 1942. Rank: Captain, Medical Corps. First assignment: Ward Officer, Station Hospital, Ft. Leonard Wood, Mo. Subsequent major assignments: Executive Officer, Station Hospital, Camp Hale, Colo.; Commanding Officer, 337 Station Hospital, Camp Ellis, Ill.; Commanding Officer, 289th Station Hospital, Honolulu and later Guam; Executive Officer, 374th General Hospital, Tinian. Theatres of operations: Honolulu, Hawaiian Islands, Marianas. Citations, decorations: Bronze Star Medal. Discharged on Febr. 21, 1946, with rank of Lieutenant Colonel. Re-entered practice on Febr. 24, 1946, in Omaha.

E. BURKETT REED

Lincoln, Nebr.

Born in Lancaster County, Nebr. (R.F.D.), Jan. 4, 1900. Graduated from University of Nebraska College of Medicine, June, 1925. Internships: Wise Memorial Hospital, Omaha, Nebr., 1925-26 (12 months); Diplomate, American Board of Internal Medicine, February, 1946. Date of enlistment: Dec. 1, 1943. Rank: Captain. First assignment: Field Medical Training School, Carlisle Barracks, Carlisle, Pa. Subsequent major assignments: Medical Service, Winter General Hospital, February, 1944; Medical Service, Camp Crowder Regional Station Hospital, August, 1945. Discharged on Febr. 17, 1946, with rank of Captain. Graduate training after discharge: Cardiovascular course, Northwestern University, Chicago, 1947. Re-entered practice on March 1, 1946, in Lincoln, Nebr.

JOHN PHILBROOK REDGWICK

Omaha, Nebr.

Born in Omaha, Nebr., Nov. 29, 1903. Graduated from University of Chicago, 1926; Rush Medical College, 1930. Internship and residencies: Washington Boulevard Hospital, Chicago, 1929-31; Passavant Memorial Hospital, Chicago, 1931-32. Date of enlistment: Oct. 8, 1942. Rank: Lieutenant Commander. First assignment: Bainbridge, Md., Training Station. Subsequent major assignments: Lion 3, Norfolk, Va.; First Marine Division, Pacific; Executive Officer, Old Naval Dispensary, Honolulu. Citations, decorations: Pacific Theatre ribbon; American Victory ribbon; One Battle Star. Discharged on Dec. 12, 1945, with rank of Commander. Re-entered practice on Jan. 15, 1946, in Omaha.

LARRY D. RIDER

Lincoln, Nebr.

Born in Fairfield, Nebr., July 22, 1898. Graduated from University of Nebraska Medical School, Omaha, 1925. Internships: Nebraska Methodist Hospital, Omaha, Nebr., 1925-26. Date of enlistment: July 13, 1942. Rank: Captain. First assignment: U. S. Army General Dispensary, Kansas City, Mo. Subsequent major assignments: Station hospital, Camp Carson, Colo.; P.O.E., Brooklyn Army Base, Brooklyn, N. Y. Detached to Transportation Corps Water Division from Camp Carson; 69th Division, Camp Shelby, Miss., for replacement training as battalion surgeon; 44th Division, Camp Philips, Kans., to complete their T.O. before shipment overseas; remainder of service with this division. Theatres of operations: Mediterranean, Northern France, Rhineland, Central Europe, American Theatre. Discharged on Nov. 30, 1945.

PAUL A. ROYAL

Lincoln, Nebr.

Born in Des Moines, Ia., Jan. 17, 1891. Graduated from University of Iowa, 1915. Internship: University of Iowa, 1915. Post graduate training prior to enlistment: Henry Phipps Psychiatric Clinic, 1917, 1924. Date of commission: 1936, USNR; Active duty, December, 1941. Rank: Lieutenant Commander. First assignment: Puget Sound Navy Yard, Bremerton, Wash. Subsequent major assignments: Senior Medical Officer, G6 Cub 7; Executive Officer U. S. Naval Hospital, Hilomia, New Guinea; Senior Medical Officer, Navy 137, Western Australia (Perth); Chief of N. P. Service, U. S. Naval Hospital, Norman, Okla. Theatres of operations: Southwest Pacific; New Guinea and Australia. Discharged on April 6, 1946, with rank of Captain Medical Corps, V.S., USNR. Re-entered practice on March 17, 1946, in Lincoln.

JEROME RITTER

Lincoln, Nebr.

Born in New York, N. Y., June 29, 1911. Graduated from Yale Medical School, 1936. Internships: New Haven Hospital, New Haven, Conn., 1936-38. Residencies: Bellevue Hospital, New York, N. Y., 1938-39. Post graduate training prior to enlistment: Bellevue Hospital, 1939-40. Date of enlistment: November, 1941. Rank: First Lieutenant. First assignment: U. S. Army Induction Station, Kalamazoo, Mich. Subsequent major assignments: Hawaiian Seacoast Artillery Command; 43rd Infantry Division; Lovell General Hospital, Ft. Devens, Mass.; Veterans Hospital, Lincoln, Nebr. Theatres of operations: Central Pacific, Hawaii; South Pacific, Northern Solomons. Citations, decorations: Combat Medical Badge; Battle Star, Northern Solomons. Discharged on Febr. 28, 1946, with rank of Captain. Re-entered practice in March, 1946, in Lincoln.

HOWARD ROYER

Omaha, Nebr.

Born in Elmwood, Nebr., Oct. 7, 1905. Graduated from University of Nebraska, 1930. Internship: Douglas County Hospital, 1930-31. Post graduate training prior to enlistment: Columbia (OB), 1936. Date of enlistment: July 20, 1942. Rank: Lieutenant. First assignment: U. S. Naval Hospital, San Diego. Subsequent major assignments: Naval Hospital, Guadalcanal; U. S. Fleet Hospital 107, Talagui; U. S. Fleet Hospital 105, New Caledonia; A.P.A. 151, Philippines; Patuxent Naval Air Station, Md. Theatres of operations: Solomon Islands; New Caledonia; Philippines. Discharged on Jan. 11, 1946, with rank of Lieutenant Commander. Re-entered practice in January, 1946.

RAYMOND R. REMBOLT
Lincoln, Nebr.

Born in Nebraska, May 8, 1911. Graduated from University of Nebraska Medical School, 1937. Internships and Residency: Evangelical Covenant Hospital, Omaha (Extern), 1936-37; University of Minnesota, in Pediatrics, 1937-38. Date of enlistment: Nov. 4, 1942. Rank: Lieutenant (j.g.), USNR. First assignment: U. S. Naval Air Station, San Diego, Calif. Subsequent major assignments: Marine Corps Air Station, El Toro, Calif.; Acorn Units in the Solomon area; Mobile Hospital No. 9, Brisbane, Australia; Hospital LST No. 613 in Philippine Campaign; 12th Naval District Dispensary, San Francisco; U. S. Naval Hospital, Norman, Okla. Theatres of operations: Solomon Area, Australia, Philippine Islands. Discharged on March 29, 1946, with rank of Lieutenant Commander, U.S.N.R. Graduate training after discharge: Children's Hospital, University of Iowa, Iowa City, 1946-1947. Re-entered practice on July 1, 1947, in Lincoln, Nebr.

JOHN A. ROSENAU
Scottsbluff, Nebr.

Born in Hastings, Nebr., Aug. 11, 1911. Graduated from University of Nebraska, College of Medicine, June, 1935. Internship: Bryan Memorial Hospital, Lincoln, Nebr., 1935-36. Date of enlistment: March 28, 1942. Rank: Lieutenant (j.g.) Medical Corps-VS, USNR. First assignment: U. S. Navy Hospital, San Diego, Calif. Subsequent major assignments: 1st Marine Division, Reinforced, (C-2 Med. Co.); 2nd Marine Division, Reinforced, (C-2 Med. C.); School of Aviation Medicine, Pensacola, Fla.; Naval Air Station, Atlanta, Ga.; Naval Air Station, Barbers Point, Oahu, T.H. (Air Group 100). Theatres of operations: Guadalcanal, New Zealand, Tarawa, Hawaii. Citations, decorations: Presidential Citation, 1st Marine Division, Reinforced, Guadalcanal; Presidential Citation, 2nd Marine Division, Tarawa. Discharged on May 7, 1946, with rank of Lieutenant Commander. Re-entered practice on April 1, 1946, in Scottsbluff, Nebr.

JOHN JOSIAH REDFIELD

First Lt. John Josiah Redfield was born in North Platte, Nebr., in 1917, the younger son of Dr. and Mrs. J. B. Redfield. He was graduated from the North Platte High School after which he entered the University of Nebraska receiving his A.B. and M.D. degrees in 1942. While attending the University he was a member of Acacia and Phi Rho Sigma fraternities. He served his internship at Eastern Maine General Hospital at Bangor, Maine, after which he went to active duty with the Medical Corps of the U. S. Army. Upon graduation from Carlisle Barracks, at Carlisle, Pennsylvania, he was selected to attend the Army School of Roentgenology at the University of Tennessee at Memphis. From there he was assigned to duty at Lovell General Hospital, Fort Devens, Mass., where he was recommended by his Commanding Officer to attend the Army School of Neuro-Psychiatry at Long Island, N. Y. When this training was completed he was assigned to duty at Camp Croft, S. C. While there he asked for overseas duty and was assigned to the 174th General Hospital at Camp Barkley, Texas, for overseas training. During maneuvers there he suffered a broken knee. When he had recovered from this injury he went to Letterman General Hospital, The Presidio, San Francisco, Calif., where he was assigned to the processing of returnees and liberated personnel returning from overseas. Recently he went to Fort Benning, Georgia, to the same duty. He was on duty there at the time of his sudden death which occurred on August 22, 1945, at the age of 28 years and 6 months. Besides his wife and small daughter, he is survived by his father and mother, Dr. and Mrs. J. B. Redfield of North Platte, and one brother.

ROBERT C. REEDER
Valentine, Nebr.

Born in Kirkland, Ill., Aug. 9, 1912. Graduated from University of Nebraska, 1938. Internship: Methodist Hospital, Omaha, 1938. Residencies: Boston City Hospital, Boston, 1939-40; Massachusetts Memorial Hospital, Boston, 1939-40. Date of enlistment: Dec. 12, 1940. Rank: First Lieutenant. First assignment: Camp J. T. Robinson, St. Hospital. Subsequent major assignments: 147th General Hospital; Attending Surgeon, Schofield Barracks, T. H.; Post Surgeon, Ft. DeRussy, T. H. Theatre of operations: Pacific. Discharged on Febr. 12, 1946, with rank of Major. Re-entered practice in 1946, in Valentine.

FRANK D. RYDER
Grand Island, Nebr.

Born in Grand Island, Nebr., Nov. 15, 1888. Graduated from Creighton University, 1915. Internships: Douglas County Hospital, 1915-16. Date of enlistment: Aug. 15, 1917. Rank: First Lieutenant. First assignment: Sn. Tr., Amb. Co. Subsequent major assignments: C. O. Amb. Co.; Operating Team 284; Service and Fr. Inf.; Mexico Border; Regt. Surg. 1st Inf.; Division Surg. 6th Div.; C. O. St. Hospital, Ft. Crook; Hospital Insp. S.G.O.; Hospital Insp. V.A. Theatres of operations: European, U.S.A. Citations, decorations: Mexican Border; Victory Medal; 5 Battle Stars; Army Occupation; Service Allied Troops; American Defense; Commendation. Retired on July 14, 1946, with rank of Colonel. Re-entered practice on Sept. 1, 1946, in Grand Island.

EDWARD R. SLAVIK
Fullerton, Nebr.

Born in Omaha, Nebr., Oct. 31, 1916. Graduated from Creighton University, 1943. Internship: St. Catherine's Hospital, Omaha, 1943. Date of enlistment: January, 1944. Rank: First Lieutenant. First assignment: Camp Barkeley, Tex. Subsequent major assignments: Torney General Hospital, Palm Springs, Calif.; Camp Patrick Henry, Va., Station Hospital; 629 Medical Hospital Ship Platoon; Fort Hamilton, New York, Station Hospital; 133 General Hospital, Leyte, P.I.; 44 General Hospital, Leyte, P.I.; 86 Infantry Division, Manila, P.I. Theatres of operations: American, European, Pacific. Citations, decorations: Bronze Star. Discharged on June 29, 1946, with rank of Captain. Re-entered practice on March 1, 1947, in Fullerton, Nebr.

FRANCIS M. SWARTWOOD
Adams, Nebr.

Born in Columbus, Ind., Dec. 11, 1890. Graduated from Lincoln Medical College, 1915. Date of enlistment: EAD, Jan. 15, 1941. Rank: Major. First assignment: Reg. Surg. 15th Inf., 3rd Division, Ft. Lewis, Wash. Subsequent major assignments: Medical Inspector, 9th Corps, Ft. Lewis, Wash.; Reg. Surgeon 138th Infantry, Cold Bay, Alaska; Executive Officer and Commanding Officer of the Station Hospital, Dutch Harbor, Alaska; Thereafter was assigned to The Adjudication Division of the Veterans Administration in Pittsburgh, Pa., and later in the same capacity at Jackson, Miss. Theatres of operations: Alaska Defense Command; American Theatre. Citations, decorations: One Battle Star, Asiatic Pacific. Discharged on Oct. 10, 1947, with rank of Colonel, Medical Corps, AUS, and Reserve Corps. Re-entered practice on Oct. 13, 1947, in Adams, Nebr.

GEORGE B. SALTER
Norfolk, Nebr.

Born in Norfolk, Nebr., May 30, 1907. Graduated from Harvard Medical School, 1931. Internship: Monmouth Memorial Hospital, Long Branch, N. J., 1931-1932. Post graduate training prior to enlistment: Presbyterian Hospital, New York, 1934. Date of enlistment: Dec. 22, 1940. Rank: Captain. First assignment: C.O., Co. B, 110th Medical Regiment, 33rd Infantry Division. Subsequent major assignments: S13, 110th Medical Regiment; C.O., 2nd Battalion, 110th Medical Regiment; Executive Officer, 321st Medical Battalion, 96th Infantry Division; C.O., 321st Medical Battalion; Division Surgeon, 96th Infantry Division; Surgeon, Central Philippines. Theatres of operations: Asiatic-Pacific Theatre, Leyte, Okinawa. Citations, decorations: Purple Heart, Bronze Star, Div. Presidential Citation. Discharged on May 1, 1946, with rank of Colonel. Graduate training after discharge: Refresher Course, University of Illinois, Medical School. Re-entered practice on May 15, 1946, in Norfolk, Nebr.

ALBERT J. SCHWEDHELM
Norfolk, Nebr.

Born in Bancroft, Nebr., May 13, 1896. Graduated from Creighton Medical School, June 3, 1923. Internship: St. Joseph's Hospital, Omaha, Nebr., 1923-24. Residencies: Surgery, St. Thomas Hospital, Nashville, Tenn., July, 1933 to July, 1934. Post graduate training prior to enlistment: M. S. Surgery, University of Pennsylvania, 1936. Date of enlistment: Oct. 25, 1942. Rank: Captain. First assignment: Chief of Surgical Service, 164th Station Hospital. Subsequent major assignments: Surgical Service, Brooke General Hospital, Fort Sam Houston, July, 1944 to Jan., 1946; Thoracic Surgical Section, Nov., 1944 to Jan., 1946. Theatres of operations: Southwest Pacific, Australia, New Guinea. Discharged on Jan. 19, 1946, with rank of Captain. Re-entered practice on Jan. 21, 1946, in Norfolk, Nebr.

NATHANIEL C. SCOTT
Omaha, Nebraska

Born in Omaha, Nebr., Aug. 11, 1916. Graduated from University of Nebraska, 1941. Internships: Nebraska Methodist Hospital, 1941-42. Date of commission: October, 1941. Rank: First Lieutenant. First assignment: Depot Surgeon, Baton Rouge Engineer Depot. Subsequent major assignments: 162nd Station Hospital, Surgical Service. Theatres of operations: South Pacific. Separated in March, 1946, with rank of Captain. Entered practice in June, 1946, in Omaha.

RUDOLPH F. SIEVERS
Blair, Nebr.

Born in Scribner, Nebr., Jan. 4, 1909. Graduated from University of Nebraska College of Medicine, 1939. Internship: U. S. Marine Hospital, Norfolk, Va., 1939-40. Post graduate training prior to enlistment: Ph.D. in Physiology and Pharmacy, 1934-39. Date of enlistment: July 1, 1940. Rank: Lieutenant (j.g.). First assignment: U. S. Quarantine Station, New Orleans, La., 1940. Subsequent major assignments: National Institute of Health, Bestheda, Maryland, Division of Industrial Hygiene, 1940-1946. Clinical and experimental research on occupational diseases associated with high explosives, aviation fuels, the newer insecticides, etc. Member of arsenal team to survey health hazards of arsenals. Discharged on Sept. 1, 1946, with rank of Lieutenant Commander. Entered practice on Sept. 12, 1946, in Blair.

EARL C. SLAUGHTER
Norfolk, Nebr.

Born in Burke, So. Dak., Febr. 28, 1911. Graduated from University of Nebraska, 1936. Internship: University Hospital, Omaha, 1936-37. Residencies: Massachusetts Eye and Ear Infirmary, Boston, 1938-40. Post graduate training prior to enlistment: Harvard Medical School, Boston, 1937-38. Date of active duty: Febr. 17, 1942. Rank: First Lieutenant. First assignment: Station Hospital, Camp Wheeler, Georgia. Subsequent major assignments: Station Hospital, Fort Jackson, S. C.; 59th Evacuation Hospital, Africa, Sicily, Italy; Finney General Hospital, Thomasville, Ga. Theatres of operations: Africa, Sicily, Italy. Citations, decorations: Meritorious Service Award; Three Battle Stars. Discharged on March 31, 1946, with rank of Captain. Re-entered practice in March, 1946, Norfolk, Nebr.

GUY P. SLAUGHTER
Norfolk, Nebr.

Born in Burke, So. Dak., Jan. 7, 1912. Graduated from University of Nebraska, 1937. Internship: Clarkson Hospital, Omaha, 1937-38. Residency: University Hospital, Cleveland, Ohio, 1938-41. Date of enlistment: May 18, 1942. Rank: First Lieutenant. First assignment: Hawaiian Area, July, 1942. Subsequent major assignments: Guadalcanal; South Pacific; 25th Infantry Division, Nov., 1942; Regimental Hospital, Camp Robinson, Ark., Dec., 1944. Theatre of operations: South Pacific. Discharged on July 20, 1945, with rank of Captain. Re-entered practice in February, 1946, in Norfolk, Nebr.

RICHARD M. STILL
Lincoln, Nebr.

Born in Hastings, Nebr., Febr. 1, 1909. Graduated from University of Nebraska College of Medicine, June 6, 1938. Internships: Portland, Ore., 1938-39. Residencies: Florida, 1939-40. Date of enlistment: Jan. 2, 1941. Rank: First Lieutenant. First assignment: Carlisle Barracks, Penn. Subsequent major assignments: Walter Reed Hospital, March, 1941 to July, 1942—Surgical Service; Auxiliary Surgical Groups, July, 1942 to Sept., 1945—Chief of General Surgical Team-Mobile. Theatre of operations: E.T.O. Citations, decorations: 5 Battle Stars on E.T.O. Ribbon. Discharged on Jan. 1, 1946, with rank of Major. Re-entered practice in Fall of 1945, in Lincoln, Nebr.

HUBERT C. STEWART
Pawnee City, Nebr.

Born in Imperial, Nebraska. Graduated from the University of Nebraska College of Medicine, 1940. Internships and Residencies: Allegheney General Hospital, Pittsburgh, Pa., 1940-41; Allegheney General Hospital, Pittsburgh, Pa., 1941-42. Date of enlistment: April 16, 1942. Rank: First Lieutenant. First assignment: Battalion Surgeon, 320th F. A. Battalion, 82nd Infantry Division. Subsequent major assignments: Battalion Surgeon, 320th Glider F. A. Battalion, 82nd Airborne Division; Commanding Officer, 307th Airborne Medical Co., 82nd Airborne Division. Theatres of operations: Mediterranean (North Africa, Sicily and Italy); European (Normandy, etc.). Citations, decorations: Bronze Star with Oak Leaf Cluster; ETO Ribbon with Bronze Arrowhead and 6 Campaign Stars; French Fouragere; Belgian Fouragere; Dutch Fouragere. (The latter 3 are unit citations worn permanently by unit members at time of earning). Discharged on April 14, 1946, with rank of Major. Re-entered practice on March 8, 1946, in Pawnee City, Nebr.

ALBERT L. SCHNEIDER

Brady, Nebr.

Born in Switzerland, April 4, 1887. Graduated from Chicago Hospital College of Medicine and Surgery, 1918. Internships: St. Francis Hospital, Colorado Springs, Colo., 1921. Residencies: Physician, Nebraska State Hospital for TB, Kearney, Nebr., 1922. Post graduate training prior to enlistment: Refraction and Eye, 1926. Date of enlistment: May 12, 1941. Rank: Captain. First assignment: Induction Station, Fort Snelling, Minn. Subsequent major assignments: Surgeon, 23rd Air Base Group, 11th Air Force, Elmendorf Field, Alaska; Acting Surgeon, 11th Air Force, Alaska, August, 1941 to 1942; Medical Inspector A.D.C., S.C., Alaska, 1942 to 1943; Surgeon, 1538 Ser. Unit, Camp Breckenridge, Ky., 1944; Surgeon, Battle Field Training Area, Fort Knox, Ky., 1945 to 1946. Theatre of operations: General Defense, Alaska, 1941 to 1943. Discharged in February, 1946, with rank of Major. Re-entered practice in March, 1946, in Brady.

GEORGE E. STAFFORD

Lincoln, Nebr.

Born in Walnut, Kan., July 8, 1906. Graduated from University of Kansas, 1932. Internship and residencies: Tauro Inf., New Orleans; Children's Mercy Hospital, Kansas City, Mo., 1932-35. Date of commission: July 21, 1942. Rank: First Lieutenant. First assignment: Lincoln Army Air Base, Lincoln, Nebr. Subsequent major assignments: Reno Army Air Base, Reno, Nebr.; Flight Surgeon, Air Transport Command, Central African Wing, March, 1944, to Oct., 1945. Theatres of operation: Africa. Discharged on Oct. 10, 1945, with rank of Major. Re-entered practice on Dec. 1, 1945, in Lincoln.

HERBERT F. STAUBITZ

Omaha, Nebr.

Born in Buffalo, N. Y., Aug. 28, 1907. Graduated from University of Nebraska College of Medicine, 1932. Internship: Tacoma General Hospital, Tacoma, Wash., 1932-33. Date of enlistment: Sept. 7, 1943. Rank: First Lieutenant. First assignment: 75th Infantry Division. Subsequent major assignments: 501 Medical College Co., 1943; 128 Evacuation Hospital, 1944. Theatres of operations: E.T.O. — Utah Beach, France, Belgium, Germany. Citations, decorations: Bronze Star; Meritorious Service, 1945. Discharged on Oct. 10, 1945, with rank of Captain. Re-entered practice on Nov. 15, 1946, in Omaha.

HARRY BAYLISS STOKES

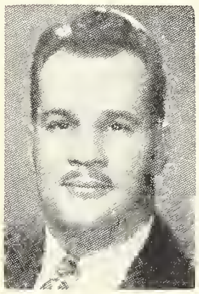
Formerly of Omaha, Nebr.

Born in England, July 29, 1904. Graduated from University of Michigan, 1928. Internships: Rochester General Hospital, 1929-30. Residencies: Bellevue Hospital, New York City, 1930, 1931, 1932. Date of enlistment: June, 1942. Rank: Major. First assignment: Fitzsimmons General Hospital, Denver, Colo. Subsequent major assignments: England. Theatres of operations: African Theatre. Killed in action January 2, 1943.

MAURICE M. STEINBERG

Omaha, Nebr.

Born in Omaha, July 15, 1910. Graduated from Creighton Medical School, 1935. Internships St. Lukes (San Francisco), 1935-36. Residency: Hillman Hospital (Urology), Birmingham, Ala., 1938-40. Post graduate training prior to enlistment: University of Pennsylvania Post Graduate School of Medicine, 1937-38. Date of enlistment: January, 1941. Rank: First Lieutenant, Medical Corps. First assignment: Fort Leavenworth, Kan. Subsequent major assignments: U.S.D.B. Station Hospital, Fort Leavenworth, Kan.; 155th Station Hospital, San Francisco and Australia; Hq. U.S.A. Service of Supply Advance Base, New Guinea; Hq. U.S.A. Service of Supply Advance Base, Sydney, Australia; Hq. U.S.A. Service of Supply, Hollandia, New Guinea; Hq. Army Forces Western Pacific, Leyte, P. I.; Hq. Army Forces Western Pacific, Manila, Luzon, P. I. Theatres of operations: Southwest Pacific—Australia, New Guinea (Australian and Dutch), Philippines. Citations, decorations: Legion of Merit; Bronze Star and Oak Leaf Cluster; Papuan, New Guinea, Southern and Northern Philippine Campaigns. Discharged in January, 1946, with rank of Lieutenant Colonel, Medical Corps. Graduate training after discharge: New York Post Graduate Hospital (Urology). Re-entered practice in January, 1947, in Omaha.



WALTER DAVID STEED

Omaha, Nebr.

Born in Clearfield, Utah, Nov. 8, 1913. Graduated from Northwestern University Medical School, 1938. Internship: City Hospital of Akron, Akron, Ohio, 1938-1939. Residency: Neuropsychiatry, Nebraska Methodist Hospital, Omaha, 1939-40; Psychiatry, Westchester Division of New York, White Plains, N. Y., 1940-42. Date of enlistment: Sept. 27, 1942. Rank: First Lieutenant. First assignment: Chief of Neuropsychiatry, 116th Station Hospital. Subsequent major assignments: Ward Officer, 198th Station Hospital (Hospital devoted to nonpsychotic psychiatry); Chief of Neuropsychiatry 249th General Hospital; Managing Editor, Journal of Military Medicine in the Pacific; Consultant in Neuropsychiatry to the Chief Surgeon, Pacific Theatre. Theatres of operations: Southwest Pacific and Pacific. Citations, decorations: Asiatic Pacific Service Medal; Philippine Liberation Medal; Army of Occupation (Japan) Medal. Discharged on Dec. 24, 1946, with rank of Major. Re-entered practice on Nov. 1, 1946, in Omaha.

ROBERT J. STEIN

Lincoln, Nebr.

Born in Lincoln, Nebraska, June 11, 1907. Graduated from University of Nebraska, College of Medicine, June, 1934. Internship: Albany Hospital, Albany, N. Y., 1934-35. Residency: Neurology and Psychiatry, Albany Hospital, Albany, N. Y., 1935-37. Date of enlistment: Sept. 25, 1942. Rank: Captain. First assignment: Chief of Neuropsychiatry, Regional Hospital, Davis-Monthan Field, Tucson, Ariz. Subsequent major assignments: Neuro-Psychiatric Consultant, Southwest U. S. Discharged on May 5, 1946, with rank of Major. Re-entered practice on June 1, 1946, in Lincoln, Nebr.

SAMUEL A. SWENSON, JR.

Omaha, Nebr.

Born in Oakland, Nebr., Jan. 14, 1917. Graduated from University of Nebraska College of Medicine, 1941. Internships: Henry Ford Hospital, Detroit, 1941-42. Residencies: Surgery, Henry Ford Hospital, 1942-44. Date of enlistment: May 21, 1944. Rank: First Lieutenant. First assignment: ASF Reg. Hospital, Camp Haan, Calif. Subsequent major assignments: Bushnell General Hospital, Brigham City, Utah; Letterman General Hospital, San Francisco, Calif. Discharged on Oct. 22, 1946, with rank of Captain. Graduate training after discharge: Preceptorship in Surgery. Entered practice on Nov. 1, 1946, in Surgery, Omaha.

A. F. TABORSKY
Lincoln, Nebr.

Born in Nebraska. Jan. 3, 1912. Graduated from Creighton University, June, 1935. Internships: Bryan Memorial Hospital, Lincoln, 1936. Post graduate training prior to enlistment: Mayo Foundation, University of Minnesota, 1939. Date of enlistment: July 6, 1942. Rank: First Lieutenant. First assignment: Station Hospital, Camp Crowder, Mo. Subsequent major assignments: Sq. Surgeon, 28th Cavalry Rcn. Sqd. (MECZ), 3rd Army. Theatres of operations: ETO. Citations, decorations: Bronze Star; Five Battle Stars; Occupation of Germany; ETO Ribbon; Victory Medal. Discharged with rank of Major. Re-entered practice in December, 1945. in Lincoln, Nebr.

EDWIN LAWRENCE TAYLOR

Born January 1, 1917, at York. He attended York Public Schools, graduating from High School with the Class of 1934. He received his B.Sc. Degree from the University of Nebraska in 1940, and his Degree of Doctor of Medicine from the College of Medicine of the University of Nebraska in 1942. He served his Interneship at Kansas City General Hospital, Kansas City, Mo. He entered active service with the navy in July, 1943, going first to Farragut, Idaho. In November, 1943, he was sent to the Southwest Pacific, going first to Australia, then to New Guinea, where he was assigned as squadron surgeon with a motor torpedo boat group. He took part in two major invasions in New Guinea, then the invasion of Leyte where his squadron received high commendation for their part in the battle for Leyte Gulf. In November, 1944, he was made a full lieutenant and assigned to the amphibious forces. He was wounded in an air action off Manila Bay the evening of January 12th and passed away the evening of the 13th aboard a hospital ship. He was buried at Lingayen, Luzon. P. I. He is survived by his wife; a son; mother and father, Mr. and Mrs. E. J. Taylor of York; one brother, Capt. Wm. H. Taylor, with the army in Australia; one sister, Mrs. John R. Witt, Roswell, New Mexico.

JOHN GUY TUCKER
Alexandria, Nebr.

Born in Malvern, Iowa., June 13, 1903. Graduated from University of Nebraska College of Medicine, 1929. Internships: Methodist Hospital, Southern California, 1930-1931. Date of enlistment: June 17, 1942. Rank: Captain. First assignment: Detach. Commander, 42nd Evac. Hospital. Subsequent major assignments: Evacuation Officer, 77th Evacuation Hospital; Commanding Officer, 59th Hospital Train. Theatres of operations: England, 1942; North Africa, Nov.-Dec., 1942; Sicily, Aug, 1943; France, July, 1944; Belgium, 1944; Germany, 1945. Citations, decorations: Bronze Star. Discharged on Febr. 2, 1946, with rank of Major. Reentered practice on July, 1946, in Alexandria, Nebr.

JOHN ALEXANDER TAMISIEA
Omaha, Nebr.

Born in Missouri Valley, Iowa, May 13, 1893. Graduated from Creighton Medical School, 1916. Internship: St. Catherine's Hospital, Omaha, 1916. Post graduate training prior to enlistment: Aviation Medicine, 1926 and 1928. Date of enlistment: Was in Reserve. Rank: Lieutenant Colonel. First assignment: Commanding Officer, 317th Station Hospital, Camp Atterbury, Ind. Served with same unit till relieved from active duty. Theatres of operations: Belfast, Ireland, January to August, 1944; near Oxford, England, from August, 1944, to April, 1945. Discharged on Aug. 19, 1945, with rank of Colonel. Graduate training after discharge: Cook County Post Graduate School, 1945. Re-entered practice in Omaha, August, 1945.

FRITZ TEAL
Lincoln, Nebr.

Born in Omaha, Nebr., Aug. 1, 1904. Graduated from University of Nebraska, 1929. Internship: Wesley Memorial, 1929. Residency: Shriners Hospital, Chicago, 1930. Post graduate training prior to enlistment: 1930 to 1937. Date of enlistment: June 30, 1942. Rank: Captain. First assignment: Station Hospital, Camp Campbell, Ky., Chief of Orthopedics. Subsequent major assignments: Nichols General, Louisville, Ky., Chief of Orthopedics. Discharged on Febr. 6, 1944, with rank of Major. Re-entered practice on Jan. 2, 1945.

SAMUEL T. THIERSTEIN
Lincoln, Nebr.

Born in Kansas, Nov. 3, 1905. Graduated from Kansas University, 1937. Internship: St. Francis Hospital, Wichita, Kan., 1937-38. Residency: Chicago Lying-in, Chicago Maternity Center, Presbyterian Hospital, Chicago, 1942-44. Date of enlistment: Oct. 4, 1944. Rank: First Lieutenant. First assignment: Carlisle Field Medical School. Subsequent major assignments: Fort Sheridan, Ill.; 71st Medical Battalion; 52nd Portable Surgical Hospital. Theatres of operations: Saipan, Okinawa, Korea. Citations, decorations: One Battle Star; Commendation Ribbon; Meritorious Service Citation; Three Overseas Bars; Asiatic-Pacific Ribbon; Korean Liberation Ribbon. Discharged on Aug. 3, 1946, with rank of Captain. Graduate training after discharge: Certified by American Board of Obstetrics and Gynecology. Re-entered practice on Sept. 12, 1946, in Lincoln.

WILLIS HEACOCK TAYLOR, JR.
Omaha, Nebr.

Born in Omaha, Nebr., Nov. 22, 1916. Graduated from University of Nebraska, 1941. Internships: Cleveland City Hospital, 1941-42. Post graduate traiinng prior to enlistment: Graduate Research, University of Nebraska, 1937-38. Date of enlistment: July 24, 1942. Rank: Lieutenant (j.g.), Medical Corps, USNR. First assignment: Naval Training Station, San Diego, Calif. Subsequent major assignment: U. S. Naval Base Hospital No. 2, Efate, New Hebrides, 1942-43; USS LST 353, 1943-44; U. S. Naval Base Hospital No. 3, Espiritu Santos, 1944-45; U. S. Naval Training Base, Pensacola, School of Aviation Medicine, 1945; Naval Air Station, Miami, 1945-46. Theatres of operations: South Pacific, Solomon Islands. Citations, decorations: Navy Unit Citation, Asiatic Pacific Ribbon with Four Stars; American Theater Ribbon, World War II Victory Ribbon. Discharged on April 12, 1946, with rank of Lieutenant Commander, Medical Corps, U.S.N.R. Graduate training after discharge: Residency, University of Nebraska College of Medicine in Obstetrics and Gynecology. Entered practice on May 1, 1947, in Omaha.

CHARLES A. TOMPKINS
Omaha, Nebr,

Born in Inman, Nebr., Jan. 31, 1910. Graduated from University of Nebraska College of Medicine, June, 1934. Internships: University of Indiana Medical Center, 1934-35; Fellow in Pediatrics, James Whitcomb Riley Hospital for Children, Indiana University Medical Center, 1935-37. Residencies: Henry Ford Hospital, Detroit (Pediatrics), and Herman Kiefer Hospital for Contagion, 1937 to January, 1939. Date of enlistment: July, 1942. Rank: Captain. First assignment: Barnes General Hospital, Vancouver, Wash., July, 1942 to February, 1943. Subsequent major assignments: Camp Kohler, California, Signal Corps, February, 1943 to September, 1944; Mayo Clinic, refresher course, September, 1944 to December, 1944; Pasadena Regional Hospital, January, 1944 to December, 1945. Discharged on March 12, 1946, with rank of Major. Re-entered practice in February, 1946, in Omaha.

PAUL H. THOROUGH
Lincoln, Nebr.

Born in Adrian, Minn., Aug. 18, 1905. Graduated from Creighton University, 1932. Internships: St. Catherine's Hospital, Omaha, 1932-33. Residencies: Germantown Dispensary and Hospital, Philadelphia, Pa., October, 1940 to 1943. Post graduate training prior to enlistment: Master of Science in Surgery, University of Pennsylvania 1943; Diplomate, American Board of Surgery. Date of enlistment: Oct. 26, 1943. Rank: Captain. First assignment: Woodrow Wilson General Hospital, Staunton, Va. Discharged on Sept. 30, 1946, with rank of Major. Re-entered practice on Dec. 1, 1946, in Lincoln, Nebr.

FRANCIS MICHAEL TUSHLA
Auburn, Nebr.

Born in Atkinson, Nebr., March 30, 1906. Graduated from Creighton University, 1931. Internships: St. Joseph's Hospital, Omaha, Nebr., 1931-32. Post graduate training prior to enlistment: General Surgery at Cook County Post Graduate School, Chicago, Ill., 1934, 1936, 1939 and 1940. Date of enlistment: Sept. 13, 1944. Rank: Captain, A.U.S. First assignment: MFSS, Carlisle Barracks, Carlisle, Penn. Subsequent major assignments: Surgery Staff, Stark General Hospital, Charleston, S. C.; Surgery Staff, Camp Butner Station Hospital, Durham, N. C.; Surgery Staff, Regional Hospital, Fort Bragg, N. C.; 342nd Surgical Detachment Overseas Unit. Discharged on Nov. 5, 1945, with rank of Captain, A.U.S. Re-entered practice on Nov. 5, 1945, in Auburn.

GEORGE R. UNDERWOOD
Lincoln, Nebr.

Born in Minneapolis, Minn., 1905. Graduated from College of Medical Evangelists, 1931. Internships: Lincoln General Hospital, 1930-31. Appointed, 1934. Rank: Lieutenant (j.g.), USNR. First assignment: 43rd Division, USNR-O. Subsequent major assignments: USNRS, Omaha, Nebr.; USN (Medical Corps), Bethesda, Md., Epidemiology; Headquarters Staff, 11th Naval District, San Diego, Calif.; Epidemiology Unit No. 80, San Diego, Calif.; Additional Duty as B. W. Officer assigned to Commanding General Staff, Western Defense Command. Theatres of operations: Western Defense Command; Western Sea Frontier. Citations, decorations: Commendation from Commanding General Headquarters, Southern California Sector of Western Defense Command. Discharged on Nov. 1, 1945, with rank of Commander. Re-entered practice in December, 1945, in Lincoln, Nebr.

CREIGHTON F. URIDIL
Hastings, Nebr.

Born in Omaha, Nebr., April 4, 1913. Graduated from Creighton University, 1940. Internship: Good Samaritan, Cincinnati, Ohio, 1941. Date of enlistment: Dec. 20, 1941. Rank: Lieutenant (j.g.), USNR. First assignment: U. S. Marine Corps Base, San Diego, Calif. Subsequent major assignments: Air Base Group No. 2, North Island, Calif.; 2nd Marine Division, F.M.F. Battalion Surgeon, 2nd Battalion, 8th Marines; Amphibious Training Base, Little Creek, Va.; USNAD, Hastings, Nebr. Theatres of operations: Pacific—Tarawa, Saipan, Tinian. Citations, decorations: Purple Heart; Presidential Unit Citation. Discharged on May 1, 1946, with rank of Lieutenant Commander, USNR. Re-entered practice on May 2, 1946, in Hastings, Nebr.

HOWARD A. VANDIVER
Ogallala, Nebr.

Born in Shelbina, Mo., Jan. 27, 1895. Graduated from Creighton University, 1921. Internship: Mercy Hospital, Council Bluffs, Ia., 1921-22. Date of enlistment: Oct. 21, 1942. Rank: Captain. First assignment: Station Hospital, Camp Barkeley, Tex. Subsequent major assignments: 232 Hospital Unit, Overseas, Camp Maxie, Tex.; Station Hospital, Camp Wallace, Tex.; Station Hospital, Camp Hulen, Tex.; Regional Hospital, Camp Barkeley, Tex.; Brooke General Hospital, Ft. Sam Houston, Tex.; Legion Veterans' Hospital, Legion, Tex.; Harmon General Hospital, Tex. Discharged on Nov. 18, 1945, with rank of Captain. Re-entered practice in January, 1946, in Ogallala, Nebr.

ROY HERBERT WHITHAM
Lincoln, Nebr.

Born in Raymond, Nebr., July 14, 1899. Graduated from Harvard Medical School, 1924. Internship and Residency: Massachusetts General Hospital, 1924-26. Date of enlistment: July 28, 1941. Rank: Commander (Medical Corps), USNR. First assignment: U. S. Naval Hospital, Great Lakes, Ill. Subsequent major assignments: U. S. Naval Hospital, Great Lakes, Ill. Discharged on Febr. 1, 1945, with rank of Commander (Medical Corps), USNR, (Retired). Re-entered practice on Febr. 1, 1945, in Lincoln, Nebr.

WILLIAM WAYNE WADDELL
Beatrice, Nebr.

Born in Lincoln, Nebr., Aug. 22, 1906. Graduated from University of Nebraska College of Medicine, Jan., 1930. Internship and Residency: University Hospital of Cleveland Medicine (Lakeside), Institute of Pathology W.R.U. (Lakeside), Assistant Resident in Medicine (Lakeside), Chief Resident in Medicine (Lakeside), 1930 to 1934. Date of enlistment: June 1, 1942. Rank: Captain. First assignment: Barnes General Hospital, Vancouver, Wash. Subsequent major assignments: All at Barnes General Hospital, Assistant Chief of Medical Branch and finally Chief of Medical Branch. Discharged on Dec. 1, 1945, with rank of Major. Re-entered practice on Jan. 1, 1946, with The Beatrice Medical Group, Beatrice, Nebr.

CHESTER H. WATERS, JR.
Omaha, Nebr.

Born in New York, N. Y., Sept. 13, 1911. Graduated from University of Nebraska College of Medicine, 1936. Internship: Presbyterian Hospital, Chicago, Ill. — Medicine, 1936-37, Surgery, 1937-1938. Residencies: North Carolina Orthopaedic Hospital, Gastonia, N. C., 1938-39; Duke Hospital, Durham, N. C., 1939-41. Date of enlistment: July 15, 1942 Rank: Captain. First assignment: Orthopaedic Service, 65th General Hospital. Subsequent major assignments: 65th General Hospital, Chief Orthopaedic Service; 240th General Hospital, Chief Orthopaedic Service; 119th General Hospital, Chief Orthopaedic Service; 216th General Hospital, Chief Orthopaedic Service. Theatres of operations: E.T.O. Discharged on June 26, 1946, with rank of Major. Re-entered practice on May 1, 1946, in Omaha, Nebr.

GLEN FREDERICK WALTEMATH
North Platte, Nebr.

Born in North Platte, Nebr., July 10, 1905. Graduated from University of Nebraska College of Medicine 1929. Internships: Gorgas Hospital, C. Z., 1929-30. Residencies: Clarkson Hospital, Omaha, 1930-31. Post graduate training prior to enlistment: Cook County Hospital, 1934; Mayo Clinic, 1940. Date of enlistment: May 4, 1942. Rank: Lieutenant, Medical Corps, USNR. First assignment: Marine Base, San Diego, Calif. Subsequent major assignments: Advance Naval Unit, South Pacific; Hawthorne Ammunition Depot, Nevada; Bremerton-Puget Sound Navy Yard; 4th Marine Division, Pacific. Theatres of operations: Pacific. Discharged on Nov. 11, 1945, with rank of Commander (Medical Corps), USNR. Re-entered practice on Jan. 1, 1946, in North Platte.

HERBERT W. WORTHMAN

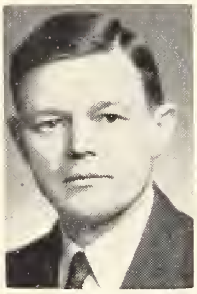
Louisville, Nebr.

Born in Louisville, Nebr., Nov. 7, 1903. Graduated from University of Nebraska College of Medicine, 1929. Internship: Nebraska Methodist Hospital, Omaha, Nebr., 1930-31. Date of enlistment: Sept. 3, 1942. Rank: Captain. First assignment: A.A.F. Base Unit, Camp Luna, N. Mex. Subsequent major assignments: T.T.C., A.A.F., B.U., B.T.C. No. 8, Fresno, Calif.; McClellan Field, Sacramento, Calif., A.S.C.; 1st Air Force, Bradley Field, Conn. Citations, decorations: Victory Medal, American Theater. Discharged in February, 1946, with rank of Major. Re-entered practice in February, 1946, in Lincoln.

MAYNARD A. WOOD

Lincoln, Nebr.

Born in Webster City, Iowa, Oct. 3, 1903. Graduated from State University of Iowa College of Medicine, June 6, 1932. Internships: Harper Hospital, Detroit, 1932-33. Residencies: Otolaryngology, State University of Iowa Hospital, 1934-36; Ophthalmology, State University of Iowa Hospital, 1936-1940. Date of enlistment: Aug. 15, 1942. Rank: Lieutenant Commander. First assignment: U. S. Naval Hospital, Long Beach, Calif. Subsequent major assignments: U. S. Naval Hospital, Oakland, Calif.; U. S. Fleet Hospital No. 114. Theatres of operations: Philippine Sea Frontier; Southwest Pacific. Citations, decorations: Ribbons—Asiatic-Pacific; Philippine Sea Frontier; West Coast Defense. Discharged on March 19, 1946, with rank of Commander. Re-entered practice on Febr. 1, 1946, in Lincoln, Nebr.



WILLIS D. WRIGHT

Omaha, Nebr.

Born in Abbingdon, Ill., June 5, 1905. Graduated from University of Nebraska College of Medicine, June, 1931. Internship: University Hospital, Nebraska College of Medicine, 1931-32. Residency: University Hospital, University of Iowa, 1932-33. Date of enlistment: June, 1942. Rank: Lieutenant Commander, Medical Corps, USNR. First assignment: U.S.N.H., Great Lakes, Ill. Subsequent major assignments: U. S. N. H. Navy No. 10; U. S. N. H., Chelsea, Mass. Theatres of operations: Pacific. Discharged on Dec. 2, 1945, with rank of Commander, Medical Corps USNR. Re-entered practice on Jan. 15, 1946, in Omaha, Nebr.

DORWIN B. WENGERT

Fremont, Nebr.

Born in Mapleton, Iowa, June 7, 1904. Graduated from University of Nebraska, 1929. Internships: Bell Memorial Hospital, Kansas City, Kan., 1929; University Hospital, Iowa City, Iowa, 1930. Date of enlistment: July 22, 1942. Rank: Lieutenant Commander. First assignment: Marine Corps Base, San Diego, Calif. Subsequent major assignments: San Francisco; Hueneme, Calif.; Southwest Pacific; Pensacola, Fla. (Aviation School of Medicine); Klamath Falls, Ore.; Seattle, Wash. Theatres of operations: Solomons, New Guinea. Citations, decorations: Commendation Ribbon. Discharged on Nov. 29, 1945, with rank of Commander. Re-entered practice on March 1, 1946, in Fremont, Nebr.

ROBERT SPENCER WIGTON

Omaha, Nebr.

Born in Omaha, Nebr., Nov. 1, 1911. Graduated from University of Nebraska College of Medicine, 1935. Internship and Residency: University of Pennsylvania Hospital, 1935-37; Pennsylvania Hospital, Dept. of Mental and Nervous Diseases, July, 1940 to January, 1941; Pennsylvania Hospital, Institute of Mental Hygiene, January, 1941 to July, 1941. Date of enlistment: February, 1942. Rank: Lieutenant (j.g.), Medical Corps, USNR. First assignment: Hospital Ship U.S.S. Solace. Subsequent major assignments: U. S. Naval Hospital, Bethesda, Md., Officers Neuropsychiatric Ward; Bureau of Medicine and Surgery, Neuropsychiatric Division, Washington, D. C. Discharged on March 23, 1946, with rank of Commander (Medical Corps), USNR. Re-entered practice in March, 1946, in Omaha.

MALCOLM B. WILCOX

Kearney, Nebr.

Born in Vesta, Nebr., Sept. 4, 1896. Graduated from Northwestern University, 1922. Internship: Cook County Hospital, Chicago, 1922-23. Post graduate training prior to enlistment — Vienna, 1926-27. Date of enlistment: Sept. 2, 1944. Rank: Lieutenant Commander. First assignment: U. S. Naval Hospital, Seattle, Wash. Subsequent major assignments: U. S. Naval Hospital, Oakland, Calif. Discharged on June 6, 1946, with rank of Lieutenant Commander. Re-entered practice June 15, 1946, in Kearney, Nebr.

DONALD J. WILSON

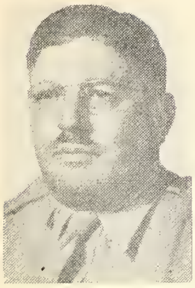
Omaha, Nebr.

Born in Ashland, Nebr., Febr. 21, 1899. Graduated from University of Nebraska College of Medicine, June 6, 1925. Internship: M. E. Hospital, Indianapolis, Ind., 1925-26. Post graduate training prior to enlistment: New York Post Graduate Medical School and Hospital of Columbia University, 1930. Date of enlistment: Medical Reserve since 1927. Active duty April 21, 1941. Rank: Major. First assignment: Executive Office and Director Prof. Services, Ft. Leonard Wood, Mo. Subsequent major assignments: Surgeon and C. O., Station Hospital, Camp Dodge, Ia., July 25, 1942-Nov. 14, 1943; Surgeon and C. O., Station Hospital, Ft. Des Moines, Ia., Nov. 14, 1943-Jan. 14, 1944; Assistant Chief, Medical Service and Chief Dermatology Section, Schick General Hospital, Clinton, Ia., Jan. 14, 1944 to May, 1945; Chief Medical Service and Chief Dermatology Section, Schick General Hospital, Clinton, Ia., May, 1945-Nov. 6, 1945. Citations, decorations: Unit Merit Plaque. Discharged on Jan. 19, 1946, with rank of Colonel. Re-entered practice on Nov. 19, 1945, in Omaha.

CLARENCE ROLAND WEBER

Hastings, Nebr.

Born in Friend, Nebr., 1911. Graduated from University of Nebraska, 1938. Internship: St. Alexis Hospital, Cleveland, 1938. Residency: St. John's Hospital, Cleveland, 1939-41. Date of enlistment: July, 1944. Rank: Captain. First assignment: 240th General Hospital. Subsequent major assignments: 112 Evacuation Hospital; 12 Evacuation Hospital. Theatres of operations: European — France, Luxembourg, Germany. Discharged in January, 1945, with rank of Captain. Re-entered practice in February, 1945, in Hastings.



HARRY GLEN WILLIAMS
Decatur, Nebr.

Born in Omaha, Nebr., May 6, 1900. Graduated from University of Nebraska, 1932. Internships: Douglas County Hospital, 1933. Residencies: Veterans Administration, 1939-40. Called to active duty. Rank: First Lieutenant. First assignment: 77th Station Hospital. Subsequent major assignments: 260 Quartermaster Battalion; 5th Brigade Amphibious Engineers; 4th Armored Division; Casualty, Battle of Bulge. Theatres of operations: England, France (Normandy Invasion, St. Lo), Belgium (Battle of Bulge), Germany. Citations, decorations: Purple Heart. Discharged on Jan. 28, 1946, with rank of Major. Re-entered practice on Feb. 23, 1946, in Decatur, Nebr.

RAYMOND J. WYRENS
Omaha, Nebr.

Born in Taylor, N. D., June 16, 1910. Graduated from University of Nebraska College of Medicine, 1935. Residencies: Assistant Resident Medicine, Baltimore City Hospitals, Baltimore, Md., 1936-37; Assistant Resident Medicine, Union Memorial Hospital, Baltimore, Md., 1937-38; Fellow in Pathology, University of Maryland College of Medicine, 1938-1939. Date of enlistment: Aug. 21, 1942. Rank: Captain. First assignment: Instructor, Enlisted Technical School, Fitzsimons General Hospital, Denver, Colo. Subsequent major assignments: Chief Medical Service, Station Hospital, A.A.B., Blythe, Calif.; Chief Medical Service, Station Hospital, A.A.B., Casper, Wyo.; Head of Section of General Medicine, 134th General Hospital; Chief Medical Service, 43rd Field Hospital. Theatres of operations: Seventh Service Command, August, 1942 to August, 1943; Second Air Force, August, 1943 to February, 1944; Southwest Pacific Theatre, March, 1944 to November 19, 1945. Citations, decorations: American Theatre; Southwest Pacific Theatre, with three Combat Stars; Philippine Liberation, with one Star; Victory Ribbon. Discharged on Febr. 28, 1946, with rank of Major. Re-entered practice on Nov. 28, 1945, in Omaha.

ROBERT A. YOUNGMAN
Lincoln, Nebr.

Born in Harveyville, Ky., 1909. Graduated from Harvard Medical School, 1933. Internships: Roosevelt Hospital, New York, 1935. Residencies: Denver General Hospital, 1936. Date of enlistment: Dec. 1, 1942. Rank: Lieutenant. First asisgnment: Medical Field Service School, Carlisle Barracks, Pa. Subsequent major assignments: Medical Service, Camp Carson, Colo.; Chief Cardiovascular Service, 110th General Hospital, Cheltenham, England; Chief Cardiovascular Service, Buins General Hospital, Santa Fe, N. Mex. Theatres of operations: ETO—Cheltenham, England. Discharged on Jan. 24, 1947, with rank of Captain. Re-entered practice on Jan. 10, 1947, in Lincoln, Nebr.

GEORGE ALEXANDER YOUNG, JR.
Omaha, Nebr.

Born in Omaha, Nebr., Sept. 16, 1910. Graduated from University of Nebraska College of Medicine, 1936. Internship: Henry Ford Hospital, Detroit, Mich., July, 1936 to July, 1937. Residency: Henry Ford Hospital, Detroit, Mich., July, 1937 to Aug. 31, 1940. Date of enlistment: June 15, 1943. First assignment: Desert Training Center, Bn. Surg. and Station Hospital. Subsequent major assignments: Consultant, Headquarters Company Z, California-Arizona Maneuver Area; Chief Medical Service, 81st General Hospital, England; Chief Medical Service, 123rd Station Hospital, France; Executive Officers' Headquarters, 813 Hospital Center, Maurmellon, France. Theatres of operations: European. Discharged on Jan. 6, 1946, with rank of Lieutenant Colonel. Graduate training after discharge: Chicago Psychoanalytic Institute, June, 1946, to date. Re-entered practice on Jan. 11, 1946, in Omaha.

HORACE H. ZINNEMAN
Lincoln, Nebr.

Born in Germany, Oct. 7, 1907. Graduated from Medizinische Fakultaet der Universitaet Wien, Austria, 1937. Internship and Residencies: Lincoln General Hospital, Lincoln, Nebr., 1938-39; Lincoln General Hospital, 1939-1940. Post graduate training prior to enlistment: Cardiology, 1938. Date of enlistment: Febr. 23, 1943. Rank: Captain. First assignment: Medical Field Service School, Carlisle Barracks. Subsequent major assignments: Battalion Surgeon, 27th Division; Clearing Station, dto.; Chief of Medicine, 86th Field Hospital; all in the Central Pacific Area (Hawaiian Islands, Marshall Islands, Marianas, New Hebrides, Ryukyus, Korea). Theatres of operations: Central and South Pacific. Citations, decorations: Three Battle Stars, one Arrowhead. Discharged on May 3, 1946, with rank of Major, Medical Corps. Graduate training after discharge: Practice of Internal Medicine. Re-entered practice on March 5, 1946, in Lincoln.

JOHN A. BROWN III
Lincoln, Nebr.

Born in Washington, Kan., June 7, 1915. Graduated from College of Medicine, University of Nebraska, June, 1941. Internships: Charity Hospital, Shreveport, La., 1941; U. S. Naval Hospital, Pensacola, Fla., 1942. Date of enlistment: June, 1941. Rank: Lieutenant (j.g.) Medical Corps, USNR. First assignment: U. S. Marine Corps, Oklahoma City, Okla., Dec. 10, 1941. Subsequent major assignments: U. S. Naval Hospital, Pensacola, Fla.; U. S. Marine Corps (Southern Dist. Hdq.), Jackson, Miss.; USN Recruiting, Macon, Ga.; JAFIS, Ft. Benning (Columbus, Ga.); ASTINDMAN, Baltimore, Md.; USS Midas ARB5, Sr. Medical Officer, Fleet Repair Unit No. 1, Seventh Fleet. Theatres of operations: Atlantic, Pacific Southwest, Admiralty Islands, New Guinea, Philippines. Citations, decorations: American Theatre, Asiatic-Pacific, Philippine Liberation—1 Star, World War II Victory Medal. Discharged on May 12, 1946, with rank of Lieutenant Commander (March 15, 1944). Graduate training after discharge: Orthopedic Surgery. Re-entered practice preceptorship under Drs. Orr and Teal, March, 1946, in Lincoln, Nebr.

THEY ALSO SERVED

The following physicians also served but we were unable to obtain data on their services. Some of them have moved out of the state and we do not know where they are; others have simply failed to respond to our requests:

Ainlay, George W.
Bartholomew, P. H.
Bowers, Warren F.
Brauer, S. H.
Brewster, Donald E.
Brimmer, K. W.
Bryant, A. R.
Burns, B. C.
Bush, Stuart K.
Byers, Robert C.
Campbell, John F.
Campbell, Louis S.
Clarke, Harry D.
Coen, Robert A.
Cohen, Louis A.
Collins, L. G.
Cram, Roy S.
Crynes, S. F.
De Flon, Eric G.
Eagan, John C.
Evans, C. D., Jr.
Everett, H. H., Jr.
Fechner, A. H.
Foley, Thos. E.
Green, Carl R.
Greer, Rex E.
Gross, Jos. J.
Haley, Robt. R.
Harmon, L. D.
Hayes, Jack M.
Henrich, Leo. Chas.
Higgins, J. P.
Hirschfeld, Beryl
Holden, W. J.
Holmes, W. E.
Hubenka, A. H.
Hynes, W. P.
Johnson, R. K.
Johnson, R. W.
Kilgore, Robert W.
Kruml, Jos. G.
Le Mar, J. D.
Lennemann, Ernest
Lipp, F. E.
Lowe, DeWitt S.
Lynch, Geo. M.
Mack, M. A.
Mackenbrock, F. C.
Meredith, J. A.
Millhouse, J. H.
Moran, C. S.
Nash, L. R.
O'Donnell, R. J.
Prescott, Kenneth
Pugsley, Geo. W., Jr.
Rathbun, S. M.
Reynolds, Verne J.
Rider, E. E.
Robbins, H. M.
Rogers, E. A.
Rogers, E. L.
Rosenberg, D. S.
Round, John N.
Rush, W. A.
Sandritter, G. L.
Sharrar, Lynn
Shaughnessy, E. J.
Shreck, H. W.
Shupe, Lester
Sinclair, R. D.
Smith, N. R.
Snipes, J. J.
Sorenson, C. N.
Sullivan, P. J.
Sutton, Bruce
Teal, Philip
Tepley, Gene L.
Thompson, C. Edward
Thompson, L. L.
Travnicek, F. G.
Watson, Donald
Weinberg, J. A.
Wolf, W. K.
Zierott, L. L.

The Nebraska State Medical Journal

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Vol. 32 December No. 12

THE PLATFORM OF THE AMERICAN MEDICAL ASSOCIATION

The American Medical Association advocates:

1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.
2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.
3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.
4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.
5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.
6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.
7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.
8. Expansion of public health and medical services consistent with the American system of democracy.

NOTICE OF LIQUIDATION OF THE MIDWESTERN AGRICULTURAL WORKERS' HEALTH ASSOCIATION, INC.

Notice is hereby given that the Midwestern Agricultural Workers' Health Association will not provide services for the foreign agricultural workers after December 31, 1947.

Any outstanding authorizations or bills payable by the Association should be submitted for payment very promptly. It is not expected that payments can be made from Health Association funds after January 31, 1948.

This situation is brought about by the liquidation of the Labor Branch program.

We want to take this opportunity to express our appreciation for the services you have rendered our organization.

A. E. VON BERGEN,
Chief of Operations,
Labor Branch.

KNOW YOUR NEBRASKA MEDICAL SERVICE

A monthly column interpreting the Nebraska Medical Service, presented in the interest of efficient Plan operation.

Claims for dilatation and curettage and cauterization of cervix are allowable when the treatment is given in a hospital. Only those procedures marked "O. T. P." in the Schedule of Benefits can be approved for claims for treatment administered in the doctor's office.

When services are rendered by more than one physician, separate medical claim forms must be submitted before payment can be made.

Diagnostic x-rays are covered according to the Schedule, for accident cases and for non-surgical cases requiring more than three days' hospitalization.

In cases of elective operations, patient and physician should check the date of issuance of the Membership Agreement to make sure that the six-month waiting period requirement is met. A list of conditions requiring waiting periods will be found under Section XV in the Schedule of Benefits.

Doctors opposed to political bureaucratic control of the medical profession know that the only practical alternative to a state system of medical care lies in voluntary prepayment plans.

NEBRASKA MEDICAL SERVICE PARTICIPATING PHYSICIANS' AGREEMENTS

The campaign to enroll the members of the Nebraska State Medical Association as participating physicians in the Nebraska Medical Service is a tremendous success. To date, two out of three doctors have signed and sent in their Participating Physicians' Agreements. The list, consisting of more than 700 names, will be published in the January issue of the Nebraska State Medical Journal.

Many more will sign these agreements as soon as they are fully informed as to the real meaning and significance of the Participating Physicians' Agreement. A brief explanation might be pertinent at this point.

1. The Service Plan takes Nebraska Medical Service out of the class of "just another insurance company," and puts it into the class of a medical service association. By signing the Participating Physicians' Agreement, we agree to deliver certain medical services to the low income group at stipulated fees, thus making it possible for this fine, large group of people to budget accurately their costs for high quality medical care in a very economical manner.

2. The Pro Rata agreement guarantees the Nebraska Medical Service against failure at any turn of the economic cycle.

Won't you show your confidence in the leadership that has given the Nebraska Medical Service such a firm foundation and wonderful beginning by signing up your Participating Physicians' Agreement TODAY?

ARTHUR J. OFFERMAN, M.D.,
President, Nebraska Medical Service.

NEBRASKA MEDICAL SERVICE
CASH RECEIPTS AND DISBURSEMENTS
October 31, 1947

Cash on hand, October 1, 1947		$46,444.97
Receipts:		
From dues	$31,961.25	
From enrollment fees	1,322.00	
Taxes deducted from salaries	36.80	33,320.05
		$79,765.02
Disbursements:		
Claims paid	$18,842.50	
Administrative expense	4,886.73	
Salary, Executive Director	200.00	
Professional fees, E. K. M.	75.00	
Medical Director	75.00	
Attorney	75.00	
Auditing	300.00	
Printing and stationery	345.70	
Advertising	481.17	
State insurance examination	329.85	
Home office travel and expense	171.23	
Hospital records	4.00	
Collection expense	8.68	
Refunds	104.50	
Exchange	.50	
Taxes paid	116.40	
Dues	18.85	
Postage	107.30	26,142.41
Cash on hand, October 31, 1947		$53,622.61
Bank Balances, October 31, 1947—		
Packers National Bank, Omaha		$52,475.45
First National Bank, Omaha		1,147.16
		$53,622.61

NEBRASKA MEDICAL SERVICE
BALANCE SHEET
October 31, 1947

Assets:			
Cash in bank		$ 53,622.61	
Premiums in process of collection		10,078.13	
U. S. bonds (cost plus accrued interest)		50,083.05	
Associated Hospital Service (administrative expense refund account		1,154.79	$114,938.58
Liabilities:			
Accounts payable, Blue Cross		$ 5,184.54	
Accounts payable, monthly invoices		1,013.00	
Accrued payroll taxes		38.80	
Claims payable			
Unreported		8,000.00	
Pending		6,820.50	
Accrued audit expense		100.00	
Unearned premiums		31.649.04	
		$ 52,805.88	
Reserve for Public Relations Campaign		$ 1,350.00	
Subscribers 4% Surplus Notes	$19,450.00		
Net income to date	41,332.70		
		60.782.70	
			$114,938.58

NEBRASKA MEDICAL SERVICE
INCOME AND EXPENSE
October 31, 1947

	Month of October	10 Months to Date
Income:		
From dues	$ 27,480.99	$209,499.37
From enrollment fees	1,322.00	8,472.00
Interest, U. S. Bonds	———	187.50
	$ 28,802.99	$218,158.87
Expense:		
Claims	$ 20,000.00	$153,457.00
*Administrative expense	4,408.77	35,896.93
Salary, Executive Director	200.00	2,000.00
Professional fees, E. K. M.	75.00	750.00
Medical Director	75.00	750.00
Attorney	75.00	750.00
Auditing	100.00	1,000.00
Special Audit	125.00	125.00
Advertising	387.90	3,257.92
Stationery	———	90.64
Home office travel and expense	211.68	1,080.08
Printing	451.65	3,534.67
Collection expense	8.68	98.75
Taxes and licenses	2.00	409.26
Dues	18.85	124.92
Postage	107.30	171.52
Miscellaneous	8.50	107.81
Insurance	———	70.26
	$ 26,255.33	$203,674.76
Net Gain	$ 2,547.66	$ 14,484.11

*Administrative expense—October	$5,184.54
Less refund for September	775.77
	$4,408.77

PER CENT OF EARNED INCOME FOR OPERATING COSTS

	Month of October	Year of to Date
Per cent for claims	69.9%	70.3%
Per cent for administrative costs	21.3%	23.0%
Per cent added to reserves	8.8%	6.7%
	100.0%	100.0%

MEMBERSHIP SUMMARY—OCTOBER, 1947

	Subscribers	Dependents	Total
1. Membership, October 1, 1947	15,489	21,544	37,033
Additions	1,141	1,362	2,503
Cancellations	392	327	719
Membership, November 1, 1947	16,238	22,579	38,817
2. Number of groups now enrolled			1,018
3. Number of groups added during October			65

OCTOBER ENROLLMENT BY COUNTY

ADAMS—20 members.
BOX BUTTE—2 groups, 38 members.
BROWN—1 member.
BUFFALO—6 groups, 59 members.
BURT—1 member.
BUTLER—5 members.
CHEYENNE—1 member.
CUSTER—2 groups, 14 members.
DAWES—1 member.
DODGE—3 members.
DOUGLAS—9 groups, 361 members.
DUNDY—9 members.
FRONTIER—1 member.
GAGE—1 group, 10 members.
HALL—5 groups, 72 members.
HAMILTON—8 groups, 67 members.
HAYES—1 group, 4 members.
HOOKER—1 member.
JEFFERSON—1 member.
KEITH—9 members.
LANCASTER—4 groups, 177 members.
LINCOLN—21 members.
OTOE—4 members.
PHELPS—3 members.
PLATTE—13 groups, 129 members.
RED WILLOW—1 member.
RICHARDSON—2 groups, 13 members.
SARPY—1 member.
SAUNDERS—5 groups, 32 members.
SCOTTS BLUFF—5 groups, 67 members.
SEWARD—1 group, 7 member.
VALLEY—2 members.
YORK—1 group, 6 members.

NEBRASKA MEDICAL SERVICE
CLAIM REPORT
October, 1947

Number of claims paid		408
Number of services rendered		447
Females		239
Males		169
Subscribers		154
Dependents		254
Type of Service	Number	Amt. Paid
Anesthesia	6	$ 80.00
Appendectomies	39	3,900.00

Eye	5	230.00
Gall Bladders	4	600.00
General Surgery	18	1,340.00
Gynecology	32	3,260.00
Hemorrhoids	9	475.00
Herniotomies	6	540.00
Minor Surgery	69	484.00
Nose and Throat	9	511.00
Obstetrics	40	2,090.00
Orthopedics	31	1,354.00
Pathology	6	55.00
Radiation Therapy	1	50.00
Tonsillectomies	45	1,575.00
Transfusions	2	20.00
Urology	8	550.00
X-rays	70	697.50
Medical	47	1,037.00
	447	$18,848.50
Amount of claims in process of settlement		$ 6,820.50

THE NEBRASKA STATE MEDICAL ASSOCIATION'S FEE SCHEDULE FOR PUBLIC AGENCIES

For many years there has existed in Nebraska a desire for a "fee schedule." This desire has repeatedly been expressed by members of our association and agencies, both public and private, interested in providing medical care. In general, the thought has been that a "fee schedule" would result in uniformity and fairness of fee where confusion had existed. A "fee schedule" should include a sufficiently complete listing of medical procedures to make it serviceable in the many fields where it would be used together with fees that would be fair and average. Fees paid from public funds certainly should not exceed the usual fee in the community for private patients. Such a schedule should be acceptable to physicians and to those responsible for paying. Its general use by agencies, governmental in particular, would have many obvious advantages. Such a schedule should come as an effort of the medical profession.

Lacking such a schedule, agencies have of necessity, in the past, prepared schedules for their particular use. Naturally these schedules vary greatly. Various State Agencies pay various amounts for similar services. County fees for medical care vary to a ridiculous degree. These schedules have for the most part been prepared by laymen representing the agency together with a physician or physicians employed by or particularly interested in the agency. Medical societies or the profession in general have not been consulted.

In many instances, these schedules have been fair and just, seldom have the fees been excessive and often they have been too low. When the fees are too low, doctors may react in several ways. In case the recipient is indigent, the physician, with few exceptions, accepts responsibility and renders adequate service regardless of fee. The feeling of responsibility to those unable to pay has always been strong in the minds of physicians although it is unreasonable to expect this responsibility for the community.

In other instances, physicians react in a less honorable manner where small fees are paid. Often devious methods are used to increase the fee. Mileage is charged for each call although several calls are made on one trip. Taking the temperature and blood pressure is called a complete examination. Where small fees are paid for physical examinations, the examinations are likely to be precarious. One can scarcely be expected to be conscientious where a fee of two dollars is paid for a history, physical examination including examination of heart, lungs, abdomen, nose, throat, vision, near and distant with and without glasses, hearing, blood pressure, various measurements, urine analysis and an ample space for confidential information which is to be held in strict confidence.

Often the recipient, under ordinary circumstances, is the physician's private patient. Here the physician often renders adequate service, and accepts the reduced fee to avoid embarrassment. Also often the number of cases treated for an agency are few, and the course of least resistance is to do the work for the small fee and not make a fuss.

One question that constantly offers agencies difficulty is that of deciding just what a given medical service implies. For instance, what is a physical examination and what is a fair fee? This, of course, depends on the complexity of the problem which the patient presents and on the ability of the physician to deal with it and on his desire to do so. Likewise surgical procedures also vary much but offer somewhat less of a problem.

The fault of this confusion is not alone that of the agency. The medical profession has failed to offer constructive leadership. Our medical schools and medical societies have grooved us to a certain pattern. This pattern emphasizes doctor-patient relationship. We must think more about well people and what well people think of us, in particular what large groups of well people think. Well people make the laws. Our public relations must be improved.

Painful as it is, we must admit that a small minority of our profession are dishonest. They strive to get the most and do the least where a third party pays the bill. How to work this third party into the picture is our problem. We have not wanted him, but society says he must be there. We must provide leadership, and must discipline our own ranks.

With these problems in mind, the 1944 House of Delegates of the Nebraska State Medical Association instructed the planning committee of the association to prepare a "fee schedule" with the hope that it would be uniformly used by agencies paying for medical care from public funds. This was definitely not to become a schedule for private practice. You would not benefit by a long tabulation of our ups and downs in this effort. However, some steps in the completion of this schedule should be related.

We considered a schedule complete over a year ago only to find it lacking in some important respects which caused us to discard it although preliminary printings had been made. We have held numerous deliberations with general practitioners and specialists from various parts of the state. We have been mindful in particular where special groups have set up "fee schedules" either on state or national levels. Many schedules from other states, in particular adjoining states, have been reviewed, and an effort toward conformity has been made. Several agencies have already used the schedule in various stages of its development, and its shortcomings have been noted and plausible changes made. It has been through the grind of negotiations with the Veterans Adminstration. While our State Association has not completed a contract with Veterans Administration, it is fair to say that the schedule has not been an objectionable feature to officers of the administration. Also we should state that the system of numbering much terminology and other features are those used by Veterans Administration. Some of our fees are higher and some lower than those of surrounding states. Likewise our schedule varies somewhat from Veterans Administration Schedules used in other states. These differences in most instances have been only slight.

Any schedule which will serve for all the various agencies and various localities cannot be brief or simple. The number of procedures must be large. A system of numbering must be used which will make future necessary alterations possible without disturbing the whole numbering system. For convenience certain procedures are listed in more than one place. Also for convenience the first part is a rather short list of commonly used procedures followed by a more lengthy and complete list. A most difficult problem has been that of fees for specialists. The difficulty is in particular that of who is a specialist.

The profession in Nebraska is at this time unwilling to wholeheartedly accept American Board Members as the only specialists. The distribution of Certified Board Members is not wide enough to serve all parts of the state. We must have some answer. While certification is our best answer, a specialist must not be too rigidly defined at this time.

A "fee schedule" should have a feature of flexibility. A schedule could be much more simple if this flexibility were not required. Various conditions in various agencies and in medical practices in various parts of the state exist. Some counties do not have sufficient funds to pay other than limited fees. Federal funds are less limited, and the state, due partly to federal matching, is also less limited. Also it is not inherent in people to be uniform. Regardless of income brackets, families vary much in how they wish to spend their money. Some spend much for home, some for entertainment and some a relatively large proportion for medical care. Flexibility must be a feature if this schedule is to endure general economic changes. A fair fee for 1932 is not a fair fee for 1947. We have certainly not reached the goal of an honest dollar.

This "fee schedule" provides flexibility by the use of a unit system. Every reasonable effort has been made to establish a proper relationship for the various services. This relationship is expressed in a number of units. Without doubt we have made errors in establishing this relationship. Much just criticism could be offered. Only time, experience and cooperation will correct these errors. This matter of relativity is the fundamental foundation of any "fee schedule." Changing trends and methods of practice will indicate further change. A procedure which is difficult and time consuming today may be made relatively simple in the future and thus justify a smaller relative value and smaller evaluation in a smaller number of units and thus a smaller fee. With the various procedures expressed in units, the whole schedule can easily be adjusted to the various circumstances without disturbing its fundamental relative values. Many will object to the unit system as too complicated and as unnecessary.

There are three steps to arrive at a just fee. First, what service was rendered; second, what is a fair relative value in relationship to other services, and third, what is the ability to pay in these times. Where only two parties are concerned, the patient and doctor, the matter is relatively simple. Where three parties are involved, the patient, the doctor and an agency complications are more likely. Much good will surely come if we of the medical profession take constructive leadership in providing a workable system which has both a feature of advantageous uniformity and necessary flexibility. At the present time, it is considered just to place the value of the unit at ten cents. The amount of this fee is included in this schedule.

Any doctor or group of doctors are, of course, free to make agreements with the various agencies; however it is our hope that this "fee schedule" will be used. The value of the unit can be adjusted to any level by the doctor or doctors and the agency. It may be changed by them from time to time depending on the various factors.

One of the present committees or a new committee of the State Medical Association should serve as a clearing house for this effort. They should receive at State Medical Association Office information as to contracts and placing or changing of unit value. They should receive suggestions of all kinds from doctors and agencies. In particular, they should receive suggestions as to changes in the relative value of various services, that is a change in the number of units credited for the services. The committee should analyze and digest this material. Annually they should report to the House of Delegates. Their report should include suggestions in regard to changes in the unit value for various services.

Then the House of Delegates should have the sole responsibility and authority to actually change unit values. The planning committee is suggesting changes in our by-laws which will put this into effect.

Another step which would have many advantages would be that of uniformity in the blanks used by the various agencies. There is no reason why a small proper assortment of blanks would not fill all needs. Familiarity with a blank on the part of the physician makes for better and more prompt reports. Familiarity with all the present blanks is impossible. Only preliminary steps in this have been made.

We of the committee are suggesting that agencies paying for medical service from public funds and members of the medical profession study this schedule carefully; that they use it in making agreements for medical service; that in cases where the printed fees seem too high or too low, they bargain only on where to place the unit value; that information as to agreements be promptly forwarded to the State Medical Office. We also request of the profession that suggestions as to changes in the number of units credited be forwarded to the office of the State Medical Association.

To all we request a spirit of cooperation. This effort can come to naught or can be an instrument of advantage to all and an important step toward better relationship between the medical profession and the public.

FLOYD ROGERS, M.D.,
Chairman Planning Committee,
Nebr. State Medical Assn.

MEDICINE IS MOST POPULAR PROFESSION WITH GERMAN UNIVERSITY STUDENTS

More German university students want to take up medicine than any other profession, according to the Berlin correspondent of The Journal of the American Medical Association, writing in the October 18 issue of that publication. He states that this is particularly true in the American and Russian zones of occupation.

The number of registered medical students in the four zones is: American, 10,714; British, 6,430; French, 2,887; and Russian, 3,336 plus an unknown number from Rostock and Greifswald which do not give official figures.

At present, however, the writer reports that many universities do not admit first year medical students. The chief difficulties are (1) the destruction of many of the university buildings, institutes, clinics and laboratories; (2) a shortage of textbooks, with those of a generation ago often the best available sources of instruction; (3) lack of housing.

"The percentage of women students is higher in the Russian zone than in western Germany," the correspondent adds. "In Berlin, for example, women constitute 40 per cent of the total, with an absolute majority at the Medical and Philosophical Faculties. In 1932 only one fourth of the students were women."

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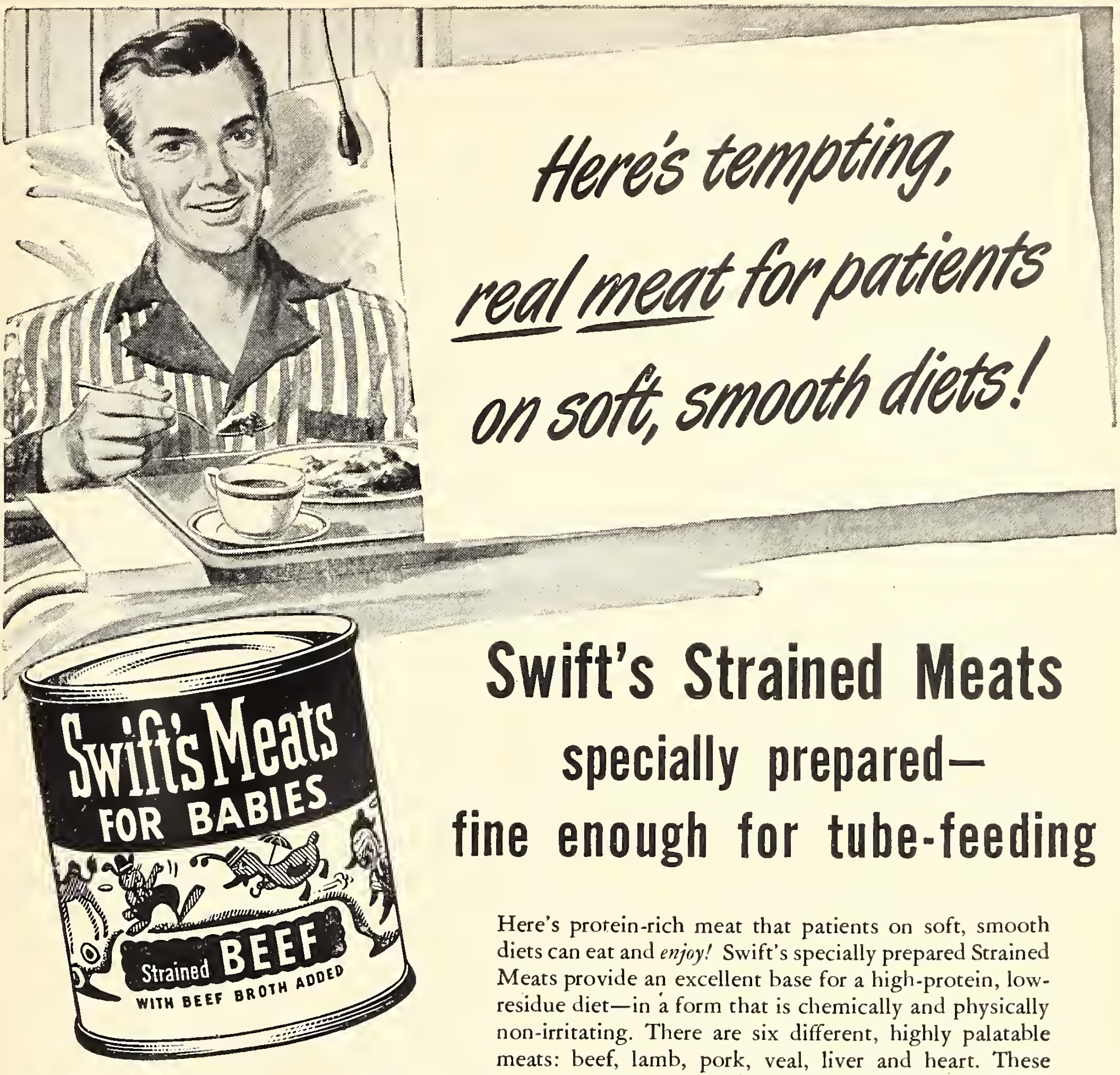
ECONOMIC, SOCIAL PROBLEMS CREATED BY CHRONIC ILLNESS

"The problems created by chronic illnesses are not only medical problems but economic and social welfare problems as well," says an editorial in the October 18 issue of The Journal of the American Medical Association. Referring to the comprehensive statement on "Planning for the Chronically Ill" published in the October 11 issue of The Journal and prepared jointly by the American Hospital Association, the American Public Health Association, the American Public Welfare Association and the American Medical Association, the editorial points out:

"Each year chronic diseases cause almost a million deaths and the loss of almost a billion days of productive work. The average life span is much longer today than a few generations ago; as the average continues to increase, the number of persons chronically ill likewise will increase. In the year 1900 one persons in 25 was 65 years of age or older; it is estimated that by 1980 the ratio will be one in 10. Chronic diseases, however, kill young persons as well as the old. Perott states that 16 per cent of all persons with known chronic diseases are under 25 years of age. From the point of view of prevalence, disability, invalidism and death, the most important chronic diseases are heart disease, arteriosclerosis, hypertension, nervous and mental diseases, arthritis, nephritis, tuberculosis, diabetes and asthma . . . The statement 'Planning for the Chronically Ill' offers a guide for future legislation."



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IN PROSPERITY DOCTOR GETS SMALLER PART OF AVERAGE MAN'S DOLLAR

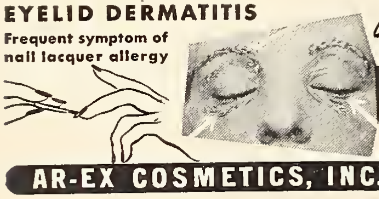
The proportion of national income spent for medical services actually has declined since 1940, according to a study made by Frank G. Dickinson, Ph.D., Director of the Bureau of Medical Economic Research of the American Medical Association. That this has happened in spite of the climbing cost of medical care and increased demand for medical services is emphasized in an editorial in the September 27 issue of The Journal of the American Medical Association.

The editorial states:

"Costs of medical care as a whole tend to move countercyclically; in a depression such costs comprise a larger share of total consumer expenditures and national income than they do in prosperous times. In a period such as the present, the trend is toward more furious inflation and lower relative expenditures for medical care. This is borne out by Dr. Dickinson's figures—medical care took 4.4 per cent of total consumer expenditures in 1932 and 1933, then the share trended downward to 3.9 per cent in 1946. Necessities always loom more important in depression; luxuries, in prosperity. But all evidence indicates that, case for case, medical care costs more each year—particularly where hospital care is concerned. Thus the decline in relative importance of medical care expenditures has occurred in spite of climbing costs of specific treatments, and an over-all increase in demand for medical services arising from the aging population, the high birth rate and popular education in health which lessens fear of hospitals.

"The declining percentage of income expended on medical care is paralleled by increasing proportions spent on alcoholic beverages, recreation, personal care and jewelry; these items in the budget were selected by Dr. Dickinson not for moral reasons but for comparability in the size of total expenditures.

"Physicians will be interested to learn that their share of the medical care dollar has declined from 32 cents in 1929 to 27 cents in 1945. Part of this decline may have been caused by the absence of those physicians who were in the armed forces during 1945. The gap was filled chiefly by increases in the share of the medical care dollar spent for drugs."



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MINERAL OIL DECREASES CAROTENE IN BLOOD PLASMA, MAY HARM LIVER

It is doubtful whether mineral oil can be used safely, year in and year out, either as a fat-substitute in foods, as a remedy for constipation, or in weight-reducing diets. Evidence as to its dangers is reviewed in an editorial appearing in the October 25 issue of The Journal of the American Medical Association.

"The use of mineral oil in foods such as imitation mayonnaise or salad dressing increased during the war because of the shortage of biologic fats and oils," the editorial says. "Such food substitutes are used extensively also in weight-reducing diets. Previous reports concerning the interference of mineral oil with the absorption of fat-soluble vitamins, particularly vitamin A and its precursor, carotene, were based mostly on animal experiments in which large quantities of mineral oil were used, compared with what would ordinarily be taken by man. Dr. A. C. Curtis and his associates showed that the ingestion of mineral oil by human beings will prevent a rise in blood carotene consequent to simultaneous intake of foods rich in carotene; the subjects in this experiment were observed for only 15 days.

"Recently Dr. B. Alexander and his associates made similar observations on human beings for three to eight weeks . . . The decrease in plasma carotene was noted within one to two weeks; it progressed further in many cases as the intake of mineral oil continued. Neither significant changes in the plasma vitamin A nor untoward clinical manifestations occurred. Since it is well known that the concentration of viamin A in the blood remains relatively constant for as long as six months in normal persons subjected to restricted intake of vitamin A and carotene, a conclusion could not be drawn on these subjects with regard to the effect of mineral oil on the supply of vitamin A as such to the body. The conclusion, however, was that in man the simultaneous ingestion of mineral oil with food prevents substantial amounts of food carotene, a precursor of vitamin A, from entering the body.

"While many physicians believe that mineral oil is not absorbable and therefore can do no harm, some of it prescribed for constipation does pass through the intestinal wall and on into the liver. Dr. W. C. Alvarez reviewed the work of Frazer, Stewart and Schulman, who found that if mineral oil was ingested without previous emulsification only a small percentage of it was absorbed, but that when given in the form of a fine emulsion, as many persons take it, about one half of it went through the wall of the bowel . . .

"These observations raise the grave question, Alvarez says, whether mineral oil can be used safely, year in and year out, as some persons use it; they also raise the question whether purveyors of food should ever be allowed to substitute mineral oil for the edible fats. The Council on Foods and Nutrition of the American Medical Association concluded in a report published in 1943 that the indiscriminate use of mineral oil in foods and cooking is not in the interest of good nutrition and that any such use should be under careful supervision of a physician."

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